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THE REVIVAL OF AMERICAN BUSINESS

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EDITOR: CLYDE L. KING

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Balance Sheet of Business

“What, in six words, is the general condition of business?” This is doubtless a legitimate question,—perhaps easier to answer for oneself in one word than in six. However, the basis for an answer is suggested in the following summary which reflects the views of a large number of business men on or about August first.

RESOURCES	LIABILITIES
CROP YIELD <i>Average or better except cotton</i>	VOLUME OF BUSINESS <i>Average reported one-third below '20</i>
PRICES <i>Increasing stabilization of general price level</i>	PRICES <i>Some too high, others too low in relation to general level</i>
MONEY RATES <i>Commercial paper rates lower Capital terms easing</i>	TAXATION <i>High rate Uncertainty</i>
WAGE RATES <i>Reduced—downward tendency</i>	LABOR COSTS <i>Too high in relation to output</i>
BANK RESERVES <i>Stronger</i>	MANAGEMENT <i>Waste</i>
BUSINESS FAILURES <i>Tendency to decline</i>	BUSINESS FAILURES <i>Still too numerous</i>
STOCKS OF MERCHANDISE <i>Reported seasonally small except in particular lines</i>	FOREIGN TRADE <i>Reduction in exports Maladjustments of business at home and abroad Dislocation of exchange rates European fiscal policies International jealousies</i>
TRANSPORTATION <i>More efficient Government settlement promised</i>	TRANSPORTATION <i>Rates too high Uncertainty</i>
RAW MATERIALS <i>Plentiful</i>	TARIFF <i>Unsettlement</i>
PSYCHOLOGY <i>Self-delusion reduced</i>	GOVERNMENT POLICY <i>Too much government in business</i>

The Meaning and Manner of Business Revival

Complementary Facts and Findings

By THE EDITOR-IN-CHARGE

WHOEVER thinks that business revival means the return of such profits as accompanied the rise of prices from October, 1915 to May, 1920, is destined to disappointment, if not grief. It can be assumed that any revival of business in the United States will be worked out under a capitalistic

order and that the institution of private property will underlie the processes of producing and apportioning the national income. The mandate of the last presidential election and the weakened position of Bolshevism are sufficient warrant for such an assumption. But assuming a continuation of the capitalistic order is very different from assuming a return of war orders for American goods.

THE MEANING OF BUSINESS REVIVAL

To those who think in terms of credit cycles, business revival means the beginning of a long swing movement of business expansion. Though day to day fluctuations in business deserve noting, as do seasonal changes, the revival of business means, rather, the beginning of a distinct phase of a credit cycle which requires several years to work out.

The earmarks of the expansion phase of a credit cycle are familiar. Prices rise. Expenses do not keep pace with the rise in commodity prices. Business is therefore profitable. Encouraged by larger profits, business men increase bank loans. They add to buildings and equipment. They get their businesses into an unliquid condition. But for the time, business is good.

The contraction phase of the credit cycle is all too familiar. Expansion cannot go on indefinitely. Bankers are forced to refuse or discourage loans in order that reserves may not be impaired. Many business men, expecting to renew loans, find that they cannot do so. They are required to begin liquidating their obligations. For those who cannot borrow or liquidate, bankruptcy is the next step. A reaction from good times is earmarked by falling prices. Expenses lag behind prices; profits decrease and inventories disclose losses. Unemployment comes. Business is depressed. With smaller profit

comes a contraction in ambitions for new ventures and activities. There is difficulty in borrowing, reluctance to make commitments and greater care in management.

In the past business contraction has been self-limiting. With a reduction in loans and consequent increase of reserves, banks were led to make terms easier. Efficient concerns built up a new credit structure. Gradually borrowers became ready for new activities. Failures declined and employment picked up. Prices became more stable and foreseeable. They even began to rise. Business became profitable. This is a description of what has happened when American business has revived after depressions of the past. It is the situation that is usually indicated by those who look forward to the revival of American business. However, to those who think of business revival as involving something more than the immediate situation, that is, the fundamental causes of business activity and national prosperity, this volume, in spots at least, may be suggestive.

REVIVAL PREDICTIONS ARE HAZARDOUS

What business revival means is reasonably well understood. Interest centers rather about the time when revival is to come. Business revival does not shoot up over night. It is therefore necessary to serve notice that the editor-in-charge has made no attempt to conduct a soothsaying department, particularly as manuscripts were sought over two months before the release date of this volume. Soothsaying is hazardous.

If business revival were now a matter of history's repeating itself with mathematical accuracy, a statistical chart would be more serviceable than pages of discussion. Statisticians have predicted the time of business revival.

The Review of Economic Statistics, published by the Harvard University Committee on Economic Research, stated on October 25, 1920, "We conclude that the liquidation in commodity markets will come to an end about ten months from last June, the month when interest rates reached their peak, or by April, 1921." In the January 25, 1921 number the *Review* began to hedge. As late as April 25, 1921, the *Review* stated that "the movements for March of the curves of our index chart give us grounds for believing that the period of general declines of business and commodity prices may be near its end." By May 25, however, the *Review* concluded that "there is nothing in the latest movements of the three curves to indicate how soon the final readjustments will come to an end. This will depend principally on the movements of Curve C, rates of commercial paper, or rather on the conditions which these rates reflect."

The appointed time for business revival has come and gone. The business situation is still spotted (in August). Something is wrong. The statistics used are as reliable as any available. But a monkey-wrench has been thrown into the statistical machinery. Call it the unpredictable new factors growing out of the war, the "vagaries of the social mind," the operation of the Federal Reserve System or anything else—the fact remains that new factors or new combinations of factors, or both, have upset the assumption of history's repeating itself with the mathematical certainty that makes prediction possible.

STATISTICAL DATA NOT TO BE DISCARDED ENTIRELY

Though statistical forecasting of business revival is almost as dangerous as playing "hunches," statistics do

show trends of development and are not to be discarded entirely. Just as the control of big business is a statistical control, so too must anything more than a "feeling" about business trends be based on the widest possible observations. Such observations are statistical. The trend of data on wholesale and retail prices, interest rates, money rates, security values, foreign exchange, imports and exports, railway tonnage, business failures, unemployment, wage scales, bank reserves and clearings are still to be noted and interpreted.

That the drop in prices has been world wide is shown in Table IV, page x. It is a hopeful sign that the fall in the general level of prices in the United States is slowing down.¹ It will be a still more hopeful sign when the index numbers of particular classes of commodity prices show less spread from the "all commodity" index number. Then one of the most important harbingers of business revival will have come. Diminution of spread will mean that the relation of businesses to one another is approaching, or has reached, an equilibrium. The actual trend of wholesale prices, up to press time, can be noted in Table I following.

Retail prices always lag behind a drop in wholesale prices. They are of interest chiefly in connection with the cost of living.² The figures on page viii are therefore of interest. Food constitutes a very large percentage of the

¹The index numbers published by commercial reporting agencies for July show a slight increase. The Bureau of Labor Statistics' all commodity index number of wholesale prices was 148 for July, showing no change as compared with the June number. It seems safe, therefore, to say that a pause at least has come in price recession in the United States. Newspaper reports show that the same situation obtains in Britain.

²Changes in cost of living in the United States from June and December, 1920 to May, 1921 are detailed in the July, 1921 number of the *Monthly Labor Review*, page 105 ff.

TABLE I
INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES (1913 EQUALS 100)

	1917	1921						1920							
	<i>Jan.*</i>	<i>June</i>	<i>May</i>	<i>April</i>	<i>March</i>	<i>Feb.</i>	<i>Jan.</i>	<i>Dec.</i>	<i>Nov.</i>	<i>Oct.</i>	<i>Sept.</i>	<i>Aug.</i>	<i>July</i>	<i>June</i>	<i>May</i>
Farm products	148	113	117	115	125	129	136	144	165	182	210	222	236	243	244
Food, etc.	150	132	133	141	150	150	162	172	195	204	223	235	268	279	287
Cloths and clothing	161	180	181	186	192	198	208	220	234	257	278	299	317	335	347
Fuel and lighting	176	187	194	199	207	218	228	236	258	282	284	268	252	246	235
Metals and metal products	183	132	138	138	139	146	152	157	170	184	192	193	191	190	193
Building materials	106	202	202	203	208	221	239	266	274	313	318	328	333	337	341
Chemicals and drugs	159	166	166	168	171	178	182	188	207	216	222	216	217	218	215
House furnishing goods	132	250	262	274	275	277	283	346	369	371	371	363	362	362	339
Miscellaneous	138	150	151	154	167	180	190	205	220	229	239	240	243	247	246
All commodities	151	148	151	154	162	167	177	189	207	225	242	250	262	269	272

Compiled by the Bureau of Labor Statistics.

* The January, 1917 index numbers are shown because the all commodity index number for that month is nearest the all commodity index number for June and July of 1921. A comparison of the group index numbers for January, 1917 and June, 1921 is enlightening. It will be recalled that the sharp rise in the price level began in October, 1915, and that the peak was reached in May, 1920. The June all commodity index number [148] shows a 45.5% decline from the peak. The July all-commodity index number was also 148.

TABLE II

	Index numbers of wholesale prices all commodities	Index numbers of retail prices of the twenty-two principal articles of food in the United States; all articles combined
1920		
May	272 [Peak]	215
June	269	219
July	262	219 [Peak]
August	250	207
September	242	203
October	225	198
November	207	193
December	189	178
1921		
January	177	172
February	167	158
March	162	156
April	154	152
May	151	145
June	148	144
	45.5% decline from peak	34.2% decline from peak

Compiled by the Bureau of Labor Statistics.

family expenditures of most wage earners' families.

The trend of commercial paper rates is regarded by statisticians as one of the most significant of the indices of business revival. Commercial paper rates,

at the time of writing, stood as indicated below.

Foreign exchange rates are likely to be governed chiefly by price levels ruling in different countries. The parity of exchange is likely to be a

TABLE III

	Rate on four-to-six months paper (Units of one per cent)		Rate on sixty-to-ninety day paper (Units of one per cent)	
	1920	1921	1920	1921
January	6.06	7.94	6.00	7.81
February	6.53	7.88	6.41	7.75
March	6.88	7.75	6.68	7.62
April	6.97	7.72	6.81	7.56
May	7.38	7.15	7.16	6.92
June	7.95	7.03	7.72	6.69
July	8.09	.....	7.84	.....
August	8.25	.....	8.00	.....
September	8.16	.....	7.97	.....
October	8.12	.....	8.00	.....
November	8.08	.....	7.92	.....
December	8.00	.....	7.88	.....

Harvard Economic Review, June 25, 1921, p. 139.

TABLE IV. PROCESS OF DEFLATION IN PRINCIPAL COUNTRIES

	United States: Bureau of Labor Stat.; 328 commodities (variable)	Canada: Dept. of Labor; 272 commodities (variable)	United Kingdom: Economist; 44 commodities	France: Statistique Generale; 45 commodities	Italy: Riccardo Bachì; 38 commodities until end of 1919; thereafter 76 commodities	Netherlands: Central Bureau voor de Statistiek; 49 commodities	Sweden: Svensk Handelstidning; 47 commodities	Australia: Bureau of Census and Statistics; 92 commodities	New Zealand: Census and Statistics Office; 140 commodities
1920									
January	248	250	288	487	508	293	319	203	190
February	249	254	303	522	557	289	342	206	194
March	253	258	310*	554	602	290	354	209	202
April	265	261	306	588*	664	296	354	217	205
May	272*	263*	304	550	660	297	361	225	206
June	269	258	291	493	632	297	366*	233	205
July	262	256	292	496	604	301*	364	234	215
August	250	244	288	501	625	289	365	236*	215
September	242	241	284	526	655	288	362	230	216
October	225	234	266	502	659	283	346	215	218*
November	207	225	245	460	670*	261	331	208	214
December	189	214	220	435	655	233	299	197	214
1921									
January	177	208	209	407	642	213	267	196	212
February	167	199	192	376	613	201	250	192	...
March	162	194	189	360	604	...	237	181	...
Percentage of decline from peak	40.4	26.2	39.03	38.7	9.85	33.2	35.2	23.3	2.75

This table is taken from the *Monthly Labor Review*, June, 1921, p. 43.

* Peak.

purchasing power parity rather than the old mint par.³ Table IV is therefore of interest as bearing on exchange rates. It shows that the process of deflation in the principal countries has gone farthest in the United States and next farthest in the United Kingdom. In France and Italy prices were still fearfully high in March.⁴

Imports and exports, railway tonnage, wage changes, bank reserves and clearings appear in the newspapers and other generally read publications with such regularity as to make it unnecessary to cite these statistics here. Information on the trend of security values is likewise a matter of daily reading. One warning, however, is in point—that the frequency of reports on security values may obscure a view of the longer swings of the market. Securities will, of course, appreciate in value with a lowering of interest rates and a cessation of dividend passing. That is, a rise in security values is a mark of business revival.

The trend of business failures reported is worth marking carefully, even though not all of the "lame ducks" have been caught up in such a tabulation as the following—thanks largely to the unremitting efforts of the banks. There is a tendency for the number of failures to decline. This is hopeful. But the monthly mortality is still too high to warrant enthusiasm.

³ For a discussion of this point see paper in this volume by George M. Reynolds and particularly the mathematical calculations in an article by Henry A. E. Chandler in the May, 1921 number of *Commerce Monthly*—published by the National Bank of Commerce in New York—which is entitled "Discussion of Some Fundamental Factors in Foreign Exchange Fluctuations."

⁴ Newspaper reports as to price changes in foreign countries as of July, 1921 show material reductions, but the relative positions of the United States, Britain, France and Italy remain unchanged.

TABLE V

	<i>Business Failures Bradstreet</i> (Units of one failure)	
	1920	1921
January	503	1998
February	434	1436
March	505	1506
April	474	1446
May	453	1338
June	571	1329
July	593	1444 ⁵
August	633	....
September	654	....
October	856	....
November	1056	....
December	1731	....

Harvard Economic Review, June 25, 1921.

When all or most of the statistics discussed in this section give evidence of improvement, then any business man can assure himself—and with a small margin of probable error—that business revival is foreseeable, if not at hand.

THE TWO VIEWS AS TO THE RELATION OF FOREIGN TRADE TO BUSINESS REVIVAL

It is not uncommon to hear that the decline in the export trade of the United States has been the chief cause of the recent business depression and that the way to business revival lies in the resuscitation of exports—with a pulmotor if necessary. Proponents of the Hundred Million Dollar Foreign Trade Financing Corporation have been particularly definite in uttering this opinion. It is urged that American goods—particularly equipment and raw materials—must be sent to Europe to relieve the American market and to assist European nations to "come back." It is contended that "failure, distress and disaster there will mean failure, distress and disaster here." Generalizations about the importance of exporting to Europe are too well advertised in public prints to require repetition.

⁵ Newspaper report by Bradstreet.

They have been urged so often that their authors and some part of the general public seem to believe them implicitly.

Enthusiasts have woven into plans for the development of foreign trade a charming pattern of romance, which seems to be colored with illusions as to its quantity and delusions as to its importance. Therefore, it cannot distort the perspective of business men to state another view point or to emphasize the hard and particular facts about the foreign trade of the United States.

In an address that has aroused such wide-spread attention as to justify its inclusion in this volume,⁶ Mr. George M. Reynolds has stated certain propositions which seem often to have been overlooked. Admitting that foreign trade for the United States is both necessary and desirable, he points out:

(1) That this trade is likely to be governed by American needs for particular imports, and by particular advantages in the production of certain classes of goods for export;

(2) That more emphasis has been placed on what the United States can do for Europe than on what European countries can and must do for themselves;

(3) That the export of American capital must be considered not only in relation to Europe's needs but also in relation to America's needs.⁷

(4) That export trade constitutes, after all, only a small percentage of the total volume of American commerce⁸;

⁶ "Capital—Shall We Export It or Use It for American Business?"

⁷ Professor Friday's statement in his article in this volume that "the necessity of exporting capital to keep foreign trade going and thus the wheels of industry turning, seems to me to be much exaggerated," is distinctly in line with Mr. Reynolds' view. Mr. Hartley Withers, Editor of the *London Economist*, recently expressed views of a similar nature.

⁸ Professor Friday notes in his article that "the average income per man, woman and child

(5) That if it were necessary for the revival of American business to wait upon the rehabilitation of Europe, revival might have to wait a long time;

(6) That the key to business revival lies rather in the domestic market than in attempts to perpetuate abnormal exports such as obtained during the period 1915-1920.

NATURAL TRENDS OF FOREIGN TRADE

"Normalcy" is a relative term. But the foreign trade of the United States during the calendar years 1915-1920 was certainly abnormal if related to foreign trade before the war. What a more normal foreign trade will mean in the years that are ahead cannot be predicted with precision—there are too many variables for mathematical accuracy of statement. The effect of the Reparations Settlement, the extent to which Europeans will deflate their currencies, work, save, and abandon imperialistic cravings are among the variables. However, to the extent that political policies permit—whether those policies are European, Far Eastern, or relate to such a question as the tariff, whose schedules are likely to be settled as usual by log-rolling and as local issues—it seems safe to predict that more normal foreign trade for the United States will be somewhat like that during the period 1900-1913. At any rate, the suggestive qualities of a paper entitled "American Trends in Foreign Trade" amply justify its publication. Factual correctives for loose generalizations are needed medicine.

THE REPARATIONS SETTLEMENT AND ITS EFFECT ON BUSINESS REVIVAL

One of the most serious of the disturbing elements in the world-wide

in this country is only about \$500 per annum. Even a college professor's family can consume more than that!" This is a rather nice implication of the expansibility of the domestic market.

business situation is recognized to be the Reparations Settlement. Unfortunately the Reparations Settlement is not settled. It is not even understood by many business men. The ingenuity of a New York lawyer or the intensive study of a specialist on foreign policies is required for an intelligible statement of what the Peace Treaty and the Reparations Settlement really involve. Mr. McDonald has given a simple statement of the facts of the Settlement that should be appreciated by the circle of *Annals* readers. It is hard to escape his reasoning that eventually one of two courses of action is likely, either the enforcement of the military sanctions and the break-up of the German Empire, or such revision of the Reparations Settlement as will permit unhampered or less restricted trade development.

It is quite certain that the revival of American business is affected by the so-called Settlement and until it contains less of uncertainty as to its effect, that revival must be somewhat retarded. The Reparations Settlement is at least one of the grays in a spotted business situation.

WANTED—A NEW ECONOMY FOR THE UNITED STATES

That England has been the great creditor nation for decades is a known fact. That Britain has exercised a major control over world trade for more than two centuries is likewise common knowledge. Within half a decade or less the United States has become a creditor nation. Within that fractional part of a century the hope, at least, has been entertained in some quarters that the United States will succeed to the control of world markets. Can a nation—even one obsessed by the ideals of speed and size—set out to control international trade, or is such control determined by geography and other

realities? Enthusiasm must sometimes be tempered by realism. History gives perspective, if not balance.

The influences that determined Britain's trading preëminence are known—and usually forgotten. The converging forces enumerated by Mr. Wages⁹ did not develop in a day or decade. Their enumeration constitutes a check-list for contrasting British and American trends of development. Britain's empire is abroad; America's is at home.

The Revolution gave the colonists political but not economic independence. Until the War of 1812, the volume and trend of American trade remained substantially the same as before the Revolution—almost wholly with England. But during the period 1815–30, the "American System" was emphasized and internal development begun. The United States lost its control over shipping to Britain in the sixties, not only because of the latter's iron boats propelled by steam, but also because riches lay in home industry and home markets.

With the settlement of the continent, the rise of large scale production and of cities, a new impetus was given to the export of commodities other than breadstuffs, cotton, meat and meat products, which were the ranking exports during the period 1860–1900. Domestic exports of manufactured goods comprised only twelve per cent of the total exports of the country in 1880 and thirty-one per cent in 1900. Iron and steel manufactures came into fourth place among American exports in the latter part of the nineteenth century. America's greatest foreign market was the United Kingdom. America's greatest market was at home.

During the period 1900–1913, the foreign trade of the United States grew

⁹ "Great Britain's Control over International Markets."

tremendously. Annual exports increased in value from less than half a billion to nearly two and a half billion dollars. In 1913, the total volume of foreign trade amounted to \$4,276,000,000. This was a big increase even considering the rising price level. Favorable trade balances, which had become a regular feature during the period 1860-1900, increased greatly, though fluctuating widely. In 1913 the favorable balance of trade amounted to \$692,421,000. This was a huge sum, but paltry as compared with recent balances or as compared with the total volume of domestic sales at that time. It is significant also that the rise in the exportation of manufactured goods tended to bring America into conflict with the manufacturing countries of Western Europe, both in those countries and in the new markets which the United States was trying to develop. The struggle for foreign markets really began just a few years before the war.

Foreign trade figures during the period 1914-1920 rose to such size that the four billion dollar favorable balance of 1919 caused no gasping for breath. Americans had acquired the habit of regarding billions of dollars with equanimity, if not comprehension. What did it matter if the price level had sky-rocketed? Business men were interested in values rather than in quantities of goods—values measured in billions of dollars. The statistics and trends of pre-war export trade apparently were forgot. Foreign trade thinking was almost solely in terms of exports—not exports *and* imports *and* tariffs, indemnity payments, depreciated exchange, falling prices, business depression and embarrassed European governments.

So great has been the export obsession that recent statements emphasizing the fact that export sales constituted only some six to eight per cent of the

total volume of sales, domestic and foreign, during the period of maximum exports, have aroused wonder, if not antagonism.

In contrasting the fundamental importance of foreign trade for Britain with the relatively minor importance of foreign, particularly export, trade of the United States, it may not be amiss to examine the cited percentages. The "total national product" for 1917 was estimated in dollars at 65,515,000,000 by Professor David Friday.¹⁰ The Hon. A. C. Miller, of the Federal Reserve Board, put the industrial and business income of the people of the United States for the year 1917 at "close to fifty billions of dollars."¹¹ B. M. Anderson, Jr., estimated the national income for 1917 at \$68,000,000,000 in an article for the *New York Times' Annalist*, January, 1918. The total exports of merchandise for the year 1917 amounted to \$6,233,512,597. This export figure is slightly more than ten per cent of the national income as estimated by A. C. Miller, a little over nine per cent of the national income as estimated by David Friday and just about nine per cent of the national income as estimated by B. M. Anderson, Jr.

The national income is different from the total volume of sales. The turnover of goods is difficult, if not impossible, to estimate. But certainly the total volume of sales of the nation would be considerably greater than the total volume of goods produced, even though some kinds of goods—certain farm products and the domestic service of wives, for example—never get to market. In *Moody's Investors' Service* for February 24, 1921, an interesting estimate puts the total volume of sales, do-

¹⁰ *Journal of Political Economy*, December, 1918; article beginning p. 952.

¹¹ January, 1918, number of *The Annals*; paper entitled, "War Finance and Inflation."

mestic and foreign, at \$97,500,000,000 for 1920. The article concludes: "According to these figures, our average exports for the past three years were equivalent to only about $7\frac{1}{2}$ per cent of our total sales, while for the maximum year they were equivalent to $8\frac{1}{2}$ per cent."

The upshot of this whole matter is that a difference of one or two per cent is not important. If exports constitute only from seven to ten per cent of total sales, the relative importance of domestic and foreign trade is very different for Britain and the United States.

If the factors that gave Britain her control of world markets and determined the importance of foreign trade and foreign financing for her are not operative to the same degree in the United States, thought had better be taken of the proper place of foreign trade in the American economic scheme, of more normal trends of foreign trade than those during the period 1914-20. If an American economy is desirable or inevitable, more attention likewise may be given to the economic tenets, for instance, of Simon N. Patten and less to straight British theory. Economic doctrines must square with the determinants of economic life. The British doctrines do. Do ours?

BUSINESS COSTS AND TRADE REVIVAL

The proposition has been advanced that the key to business revival lies in the domestic market and in a more normal export trade. This proposition has at least two corollaries. Stabilized prices seem to be needed before a resumption of anything more than hand to mouth buying can be expected. The drop in prices, even when checked, makes a reduction in costs imperative, if business is to be profitable. The costs of capital, labor and

government must all be cut. Waste of all kinds must be reduced, if not eliminated. The second section of this volume bears particularly on the reduction of costs. The general problem is one of better informed and scientifically ordered management, even in government. Costs do not reduce themselves.

THE PRICE AND COST OF CAPITAL

Professor Friday's prediction¹² that money rates and interest rates are to be appreciably lower within the foreseeable future is supported by facts and cogent reasoning. It should be a source of distinct comfort to business men hoping for lowered costs of production. However, they must not forget that unwise use of capital is the leading cause of business failure. Capital costs are not dependent solely on interest rates. Ill-considered ventures, imprudent extensions, improper types of equipment, surplusage of machinery, and other unwise uses of capital may more than offset a lowered price of capital. Capital costs are really to be reckoned in relation to other costs and in relation to output.

If Professor Friday's prediction is at all vulnerable, the weakness may lie in his brief analysis of the supply influences affecting interest rates¹³ possibly an under-estimate of the demand for capital. But any difference of opinion regarding the probable trend of interest rates is likely to be chiefly a difference as to the time and extent of the decline.

WAGE SCALES AND LABOR COSTS

So much has been said about the reduction of wages as a means of reducing costs of production that fur-

¹² "The Probable Trend of Interest Rates."

¹³ Compare that section of Mr. Reynolds' article headed, "Savings Not Indefinitely Elastic."

TABLE VI
INDEX NUMBERS OF WAGES PER HOUR, 1840-1920

Prepared by the Bureau of Labor Statistics from incomplete available sources. This table affords a comparison of wage changes incident to the Civil War and the recent great conflict

(1913 equals 100)

Year	Index Number	Year	Index Number	Year	Index Number
1840	33	1867	63	1894	67
1841	34	1868	65	1895	68
1842	33	1869	66	1896	69
1843	33	1870	67	1897	69
1844	32	1871	68	1898	69
1845	33	1872	69	1899	70
1846	34	1873	69	1900	73
1847	34	1874	67	1901	74
1848	35	1875	67	1902	77
1849	36	1876	64	1903	80
1850	35	1877	61	1904	80
1851	34	1878	60	1905	82
1852	35	1879	59	1906	85
1853	35	1880	60	1907	89
1854	37	1881	62	1908	89
1855	38	1882	63	1909	90
1856	39	1883	64	1910	93
1857	40	1884	64	1911	95
1858	39	1885	64	1912	97
1859	39	1886	64	1913	100
1860	39	1887	67	1914	102
1861	40	1888	67	1915	103
1862	41	1889	68	1916	111
1863	44	1890	69	1917	128
1864	50	1891	69	1918	162
1865	58	1892	69	1919	*184
1866	61	1893	69	1920	†234

* This index number applies to the spring of 1919. Wage rates advanced during the year.

† This index number applies to the summer of 1920, and probably represents the wage peak of the year.

Figures during the Civil War period represent a currency basis.

ther comment may seem unnecessary. However, there are two parts to the story and both are not always emphasized. A reduction of labor costs involves not only a reduction of wage scales for many labor groups, but also a reduction in the number of workers in relation to output. This matter of increased efficiency of labor is too important to be slighted.

Money wages in 1920 were three and a half times higher than in 1870, seven

times higher than in 1840 and over twice as high as in 1914, the year that marked the beginning of the war.¹⁴ Under the circumstances it is not strange that thought of reducing production costs should center so often about reduction of wage scales.

That cuts in wage rates have been and will be made is indisputable. It is improbable, however, that the level of money wages will recede to the 1913

¹⁴ See table and chart included in this section.

level within the foreseeable future. The teachings of historical fact are not wholly futile. The trend of money wages over a period of eighty-one years is shown in the table below, prepared by the Bureau of Labor Statistics.

The following chart tells the story of the trend of money wages even more clearly.

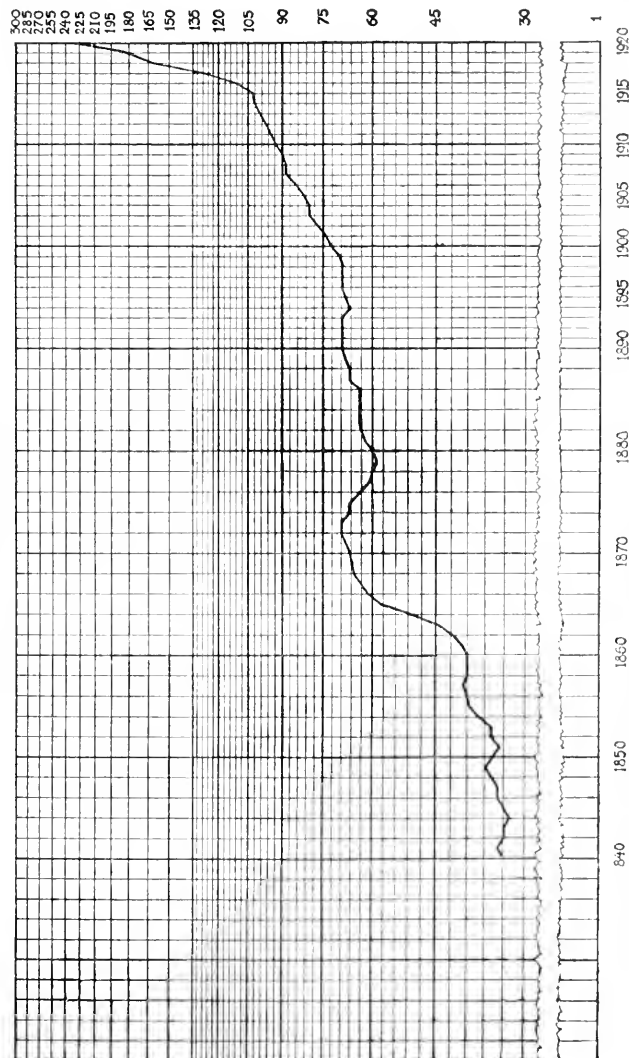
The curve of the index number has

risen steadily since 1840 with only one major decline, from 1873-79, and one minor recession, during the years 1893-94,¹⁵ until the year 1915, when the curve begins to leap upward.¹⁶

¹⁵ The depression of 1907 did not cause a wage decline; it merely stayed the rise in wage rates.

¹⁶ It is probably unnecessary to elaborate the trend of *real* wages in this article. Workers and labor unions accepted the "principle" that wages should be adjusted to living costs when prices were rising, but now that the cost of living

Wage Curve 1840-1920.



ON THE RIGHT ARE INDEX NUMBERS OF WAGES PER HOUR—1913 = 100. BUREAU OF LABOR STATISTICS DATA.

After the Civil War wage rates did not slump. They rose each year from 1860 until 1872, in all from an index number 40 to the index number 69. It is not submitted that what happened after the Civil War will happen now. What is sure is that there will be a recession in wage rates, just as there were declines following the depressions of '73 and '93. Wage reductions now proposed sound drastic, but they can hardly be called "liquidation of labor." Cuts of twenty or thirty per cent are relatively small as compared with the recent increase in money wages.

Both history and recent proposals give basis for the statement that a reduction in labor costs is more likely to come through increased labor efficiency than through reductions in wage scales. The big problem of labor management is, therefore, that of reducing the number of workers in relation to output and of stimulating an increased interest among workers in production and workmanship by whatever means may be found practicable. Real business management will center its attention on the problem of liquidating labor costs. This is partly a labor

is declining, they seem to be rather generally opposed to downward revision of money wages. Talk about cost of living should not becloud such matters as the capacity of the industry to pay, the relation of labor costs to total costs and the efficiency of labor. As a matter of historical fact it may be noted that the curve of money wages has risen steadily, but the price level has moved up and down. In general, the level of prices rose during the period 1850 to 1873, declined thereafter until 1896, rose at the rate of about 3 per cent a year until 1914 and from October, 1915 to May, 1920 rose skyward as shown by the index number table of wholesale prices printed in a previous section of this article. When prices rise, money wages lag; when prices fall, money wages also lag. If money wages do not fall proportionately with the drop in prices, workers will, of course, enjoy larger real wages. Through the period 1840-1920 it seems that real wages have been rising. Whether they were high enough in 1914, say, is a debated question.

management problem and partly a problem of using efficient forms of capital equipment and of eliminating waste. These are, of course, not the only measures that must be taken to reduce labor costs, but they are suggestive—particularly suggestive of the need of efficient management.

THE ELIMINATION OF INDUSTRIAL WASTE

The reduction of costs by eliminating or reducing waste is a problem commanding technical knowledge. It also calls for the courageous adoption of improved methods or equipment, or both. Competent counsel is frequently needed, and if competent, is itself a low cost item. Scientific method is nothing more than the close application of that uncommon quality known as common sense.

Getting rid of waste seems to be an activity particularly within the bailiwick of engineers. Salient points in the report of the Committee on the Elimination of Waste to the American Engineering Council have received newspaper publicity, but are set forth in Mr. Wallace's article¹⁷ in a fashion so authoritative as to merit the thoughtful attention of business managers.

If a particularly horrible example of industrial waste is needed to shock the managers of business enterprises, it is found in the close study by Dr. Mitchell, entitled, "Waste in the Manufacture of Men's and Boys' Ready-to-Wear Clothing."

THE APPLICATION OF STANDARDS IN MEASURING THE CREDIT RISK

Engineering counsel is often an aid in the reduction of costs, but business men can employ self-help by applying sound standards in measuring credit risks.

¹⁷ "Industrial Waste."

Improper extension of credit is a costly procedure and Mr. Tregoe has grounds for preaching anew the "three C's" of credit.¹⁸

After the recent "involvements" of business concerns, warning about credit standards may properly come from another quarter—from a banker whose pet interest is the supervision of the credit department of one of the largest banks in the country.¹⁹ While his engagements did not permit him to write an article, he dictated a memorandum which the editor is taking the liberty of quoting.

OLD WINE IN NEW GLASSES

Quick assets in a balance sheet consist primarily of cash, accounts and bills receivable, merchandise and readily marketable securities. We have discovered that these items at times are not quick assets; that cash is sometimes money deposited abroad which cannot be lifted because of an exchange barrier; that accounts are not met at maturity, but are renewed indefinitely, and that merchandise is a glut on the market. We have had the reasons for Cannon's famous two-for-one theory emphasized; assets always shrink while debts rarely do. Therefore a necessary adjunct in considering a risk at this time is a complete, detailed statement, not only of assets and liabilities, but also as to contingent debt, contract debt, commitments and guaranties,—plus a complete detailed operating statement, preferably over a period of years. We discover that businesses are keyed upon a certain volume of sales to carry the overhead. If sales collapse suddenly, it takes months to adjust the overhead to the new scale; meanwhile, operating expenses eat up existing capital to the point of financial exhaustion.

We recognize the dominating importance of a budget system of operation. We have observed that a concern operating on a good budget system has not allowed the buying

end of the business to run wild. Such a system checks speculation in merchandise. Merchants have had their optimistic over-purchases vindicated so long and so often that many of them have come to regard a rising tide of prices as a regular and natural occurrence.

Unbalanced inventory, we discover, has many evils in its train. The question is not so much whether a business is stable or luxurious, but how much of an assembled proposition the output is. Does the concern manufacture a diversified line of commodities or only a few articles? It would not take long to get the overhead down, as a rule, with a company manufacturing a few standard articles—for instance, Ford.

Abnormal war-time profits created abnormal taxes and led to extravagant dividend disbursements and salary payments, with the result that in lean periods the reserve fat to fight business depression has been eaten up and over-worked working capital succumbs to the demands upon it. The thought suggests itself, therefore, that the slow, plodding, consistently earning business is sometimes a better risk,—remembering the old fable of the hare and the tortoise.

Acceptance credits should be handled as carefully as discounts and, likewise, the usual principles of credit should be applied to foreign exchange transactions in which an element of credit is involved.

The wisdom of selecting a risk in which the stockholders are resourceful, energetic men of some outside means is still pertinent. Occasionally a business becomes anemic and we discover that there is no vitality in the management, which is controlled by estates or people living remote from the company's scene of operation.

The new freight rates may make zoning of business imperative and may even shut a concern out of a market which was heretofore a prime user of its product.

Likewise, tariff readjustment may surround a prospective credit with uncertainty. A business solely dependent upon the caprice of politicians or the swings of foreign exchange for its profits is a hazardous line. We have discovered, also, that the bill-of-lading draft is at times a slow collateral loan with collateral remote from one's office,

¹⁸ "Standards for Granting Credit."

¹⁹ Mr. John F. Craddock, Vice-president, Continental and Commercial National Bank of Chicago.

expensive to handle and frequently unguarded, with no assurances that the consignee will accept and pay the document. Various ramifications of this one question have loaded the docks abroad and the railroad warehouses of this country.

Rising prices are not essential to good business but, on the contrary, are sometimes an incentive to speculation or carelessness. Lowering prices are not an unmixed evil if they necessitate greater care in management.

TAXES AS A HINDRANCE TO BUSINESS

Taxes have been so substantial and their application so uncertain that they have retarded development toward the point of "normalcy"—whatever and wherever that point may be. The Administration has taken cognizance of the consequences of such taxation to business already struggling against debt and depression. There was a great gap, however, between cognizance by the Administration and action by Congress. In the latter's lexicon, "dispatch" seemed to be given a meaning far removed from its usual significance. Precedence and precision of action wandered into the field of political desire and expediency. Tariff adjustment was placed before tax adjustment, and revenues were considered before the costs of government were determined. Thus politics interfered with business and business judgment; management and genius became attributes of small moment. When the government flounders, business can only grope.

The costs of government must not penalize business efficiency and business must be made productive enough to bear war burdens of taxation.²⁰ This is about all that can be said with certainty. The delay in tax adjustment seems at least to have given time for sufficient discussion of the various

forms of sales taxes—and their apparent rejection. In the end, the tax bill approved by President Harding and modified by the Republican caucus seems likely to be passed,—possibly after further vicissitudes. Taxes, it is hoped and half planned, are to be made less burdensome on business,—which will ultimately be free to draw on the capital it creates for its own development. Whether deficiency appropriations will later be passed remains to be seen. But reported cuts in appropriations, amounting to half a billion dollars, gives present encouragement,—more than projected economies that may result from the new budget system. Funding of foreign debts may be worked out satisfactorily and may help later on. Greater certainty in the tax situation is now foreseeable, but cause for unrestrained rejoicing must still be sought in newspaper bulletins.

THE FEDERAL RESERVE SYSTEM—ITS AMENDMENT AND ADMINISTRATION

When adversity comes, Americans seem always to turn to new machinery for salvation. Foreign trade financing corporations or coöperative marketing schemes are present illustrations. People also like to tinker with existing machinery, particularly with the Federal Reserve System. Even business men seem to want nickle-in-the-slot government, which will save them. Automaticity is a choice mechanical ideal, but always in the end human beings must operate.

Such changes in the Federal Reserve Act as are found necessary, after careful analysis, to further the real purposes of the system, should be enacted. These are very few, as Mr. Dodge points out.²¹ The McFadden bill (H. R. 4906) abolishing the office of the

²⁰ Cf. the article by Dr. King in this volume, "Taxation That Will Not Impair Business."

²¹ "Changing the Fundamental Structure of the Federal Reserve System."

Comptroller of the Currency has received the endorsement of bankers, and deservedly.

Of vastly more importance than amendment of the Federal Reserve Act is its administration to accomplish its fundamental purposes. The strict commercial character of eligible paper and the strict commercial character of the System must not be impaired. This is true whether pressure comes from those who would end the farmer's credit struggle through the System's capacity for expending credits, or whether the pressure comes from some other group who think that somehow the government, and especially the Reserve System, can make everybody rich.

The Federal Reserve System, to operate properly, must be unhampered by politics—unhampered even by "hang-over" political doctrines. The System can work with government without being dominated by government.

Proper administration means the adjustment of rediscount rates in the light of district conditions. It means the formulation of all district policies according to the factual situation in each district.

The selection of the best possible men to control the System, nationally and *locally*, is imperative. They should be selected regardless of friendship, favors received or honors to be distributed. No administration is better than the men in charge of it.

Public opinion should be alert to the need of eliminating any policy of arbitrary control of the System, all political interference or dead-level uniformity between districts. Above all, the idea should be sloughed off that the Reserve Banks are *government banks* which possess an economic panacea to be applied through political manipulation.

THE MIDDLE WEST—THE ECONOMIC BACKBONE OF THE NATION

Production at minimum cost involves two factors particularly. These are location and personnel. If a business is not properly located, it is under a handicap which will be reflected in decreased profits. If the personnel of any concern is not efficient, costs will be higher than they should be and profits will be correspondingly curtailed. In considering the revival of American business, labor costs are of immediate concern, but the problem of location, or perhaps relocation, of industry cannot be overlooked.

Practical experience has taught that manufacturing industries have had their locations determined by raw materials, labor, the market, power or fuel, capital and transportation. These factors have operated in various degrees at various times and with respect to various industries. Close examination of the part they now play seems to point conclusively to the present and future importance of nearness to market and accessibility of raw materials.²² The marked advantages of the Middle West with respect to these two factors, as well as other determinants of industrial location, give concrete reason for the generalization so often made that the Middle West is the economic backbone of the nation. This statement may not be welcomed in some quarters, but it has been made often enough to be comprehended, especially as the actual trend of industrial relocation has been toward the Middle West.

It is doubtless true that extensive changes in the structure of railroad rates might be such as to speed up an already marked process of relocating manufacturing establishments. Certainly, if the vast domestic market is

²² "Economic Factors in the Location of Manufacturing Industries."

not to be overlooked, in considering the hoped-for revival of American business, this question of the location or relocation of manufactures must be given serious consideration. Economies in production will have small regard for sentiment or section in the days that are ahead.

KEY INDUSTRIES IN THE REVIVAL OF AMERICAN BUSINESS

Part two of this volume has been given over to a number of factors, particularly cost factors, affecting any kind of business. It is helpful in getting at "the meaning and manner of business revival" to take a new approach—the usual one of studying conditions in key industries. The railroads, farming, the steel business, the automotive industry and building construction have clear title to the claim of being key industries. This claim is evidenced by the "essential" character of the industries, by the magnitude of their operations and by the fact that revival in almost any one of them would help to revive the business of the others. It is common knowledge that the important domestic industries are interdependent. Those business pursuits, like cotton growing, which depend rather on foreign than on domestic markets, are less closely integrated with the domestic business structure, but the difference is only one of degree. Though the list of key industries analyzed in Part III might be more comprehensive, there is a deal of common sense in appraising those listed, if one would gauge the *when* and *how* of business revival. A plea of "confession and avoidance" could be entered against the charge that the list is not sufficiently comprehensive.

RAILROAD RECOVERY AND BUSINESS REVIVAL

The capitalization of the railroad industry, the number of its employees,

its purchasing power and the economic importance of its service make it the industry to which the country habitually turns in seeking first signs of business revival. It seems likely to indicate a measure of improvement in the near future.

The financial plight of the railroads has been detailed in all public prints. It is nevertheless agreeable to have some one who is a detached student of the "railroad problem" say bluntly that the unbusinesslike methods of the United States Railroad Administration have been chiefly responsible for the financial position in which the railroads find themselves.²³ Professor Van Metre is perhaps daring in suggesting government subvention—that the "government should give to the carriers, either as a subsidy or as a long time loan without interest, a sum equivalent, as nearly as possible, to the surplus which the Railroad Administration might have created out of earnings, had adequate rates been established." The argument is logical: If the Railroad Administration kept rates down during a period of rising prices and mounting expenses so that a surplus could not be created against the time of depression, then the Federal Government should undo its violation of a sound business principle by making restitution.

It is reported by the newspapers that at a dinner given by President Harding to western bankers, the trend of feeling took some such turn, though not so explicit or sweeping. Certain it is that the Federal Government since that dinner—whether two and two make four in this case is purely a matter of conjecture—has taken steps to speed up the settlement of railroad claims against the government. President Harding's message to Congress on

²³ "The Railroad Predicament: How It Arose and How to Get Out of It."

July 26 pointed the way. The plan proposed would put the railroads in funds to the amount of some \$500,000,000, while their indebtedness to the government would be funded. This should be a start toward the recovery of the railroads and the revival of American business. The government seems to have got the railroads into a financial "mess" and it must lead in getting them out, if private ownership and operation are the public wish.

The "railroad problem" has more than a fiscal aspect; labor and operating problems are included. More labor disturbances—whoever might be responsible—would be disastrous. Adequate and effective service will be called for when business revival does come. The public has a right to that kind of service. Labor and operating problems call for unusually able management. The public has a right to expect such management.

It is devoutly to be hoped that the two headed monster constituting the railroad problem, impaired finances, and labor adjustments, will have lost its terror soon after this volume comes from press.

PROSPECTS OF THE GRAIN GROWER

It is alleged, with truth, that the farmer was the first to feel the effects of the recent contraction of business. There is probably no gainsaying the fact that the grower of grain was reluctant to face the inevitable, and aggravated his financial difficulties by holding his product instead of releasing it for the market before the full effect of the price slump was felt. It is doubtless true that some farmers "went it pretty heavy" on expenditures for automobiles, some bought too heavily of consumer's goods, some went in for "blue sky," some bought unnecessary new equipment and some were caught

in land deals. Another point in the indictment might be that the grain growers, or rather their voluble representatives, seemed to regard the Federal Government as able to make everyone rich, or at least able to put a price peg in a grain market subject to the play of world-wide supply and demand forces, so that the farmer should not suffer loss. A so-called "Agrarian Bloc" is said to be working in Congress now for what they think the farmers need.

On the other side of the ledger, however, should be chalked up the fact that even if every farmer had sold all his grain when the pressure of the Federal Reserve System bore on him to liquidate, he could not have done so. Many farmers incurred expenses and obligations at a high price level and would have sold at a lower and lowering scale of prices. A margin of debt would have been carried by the country banks in any case. Large banks with hundreds of country bank correspondents realized the situation and borrowed heavily at the "Fed." The farmer has only a single turnover a year. His position is different from the merchant's or manufacturer's. Banks at the centers *had* to carry the farmer. A policy of deflation was necessary, but as was not always realized, it was necessary also to apply it considerably in the full realization of the farmer's peculiar position. The banker's hope is that the farmer will "clean up" obligations out of this year's harvest. It is a hope that promises to be partly realized.

The ultimate position of the grain grower is undoubtedly sound.²⁴ He is an indispensable member of society. Food is a primary need. It is his immediate prospect that is perhaps less reassuring. The real situation cannot

²⁴ See "The Recovery of the Grain Farmer" in this volume.

be disclosed until the spread between the price of farm products and the price level has narrowed.

What will come of schemes for coöperative marketing or other methods for controlling the marketing of grains is as yet problematic. The War Finance Corporation plan for handling grain exports is still in process. The farmer's program should be followed intelligently and sympathetically, but with an eye open for any bad economics that may develop. He is certainly entitled to a reasonable return. No thoughtful student of economics would deny him profits. The agrarian movement in Congress commands interest. But if some of the members of Congress—especially the over-abundant lawyers—will not learn that politics cannot successfully defy economic forces, they should be prevented, by an alert and effective public opinion, from doing too much harm.

SLOW RECOVERY OF THE COTTON BELT

The known facts about the cotton situation, as noted in Mr. Shelton's article²⁵ and in field studies, do not make a pretty story. The bottom fell out of the cotton market. Buyers were aware of growers' financial extrenities and induced competition among sellers that was often ruinous. In general, however, growers were not particularly disposed to sell, and the return was less the longer they waited. If sales were made, they regularly netted amounts less than cost of production. Expenses on the 1920-21 crop had been incurred on a high price level. Funds had been secured largely from banks and cotton factors, as usual, to cover these expenses. Collateral given was often 1919-20 cotton which later could not be marketed at 50 per cent of the face of the loans. Credit was frozen. Planters' surpluses had been spent on

consumer's goods or real estate. Cotton growers asked new extensions of credit. Local bank loans were necessarily restricted. Banks in the centers practically became cotton planters. Commercial loans became investment loans. New York and Boston Reserve Banks rediscounted for the Reserve Banks in Dallas and Atlanta. Every possible angle of financing had to be tried and new credits made available—under supervision. Somehow cotton growers and cotton banks had to be salvaged. And the end is not yet!

The cotton growers tried self-help in the way of restricting acreage, fertilizer and supplies. The 1921-22 crop will be smaller than that of 1920-21. Cotton growers are familiar with the paradox of value; price varies inversely with supply. Thus price may be raised to cover costs that do not decline proportionately. With curtailed output and orderly marketing of the 1921-22 crop, it was felt that obligations could be liquidated—gradually. Moreover, economy, voluntary or forced, had to become the order of the day. It is to be hoped that the worst will be over this year, and it may be if the War Finance Corporation plans work extensively.

One form of self-help that is new in certain sections, for example the Delta country, is crop diversification. In 1920 the planter anticipated a price for his cotton which would make the purchases of feed-stuffs for making the 1921-22 crop easier and cheaper to buy than to raise. With the market decline, banks had to purchase at least seventy-five per cent of the 1921 feed. In 1922 the planter will have raised seventy-five per cent of his own feed. But this was due to financial pressure and may not be a permanent improvement.

Cotton is an American product that requires a foreign outlet. No one dis-

²⁵ "The Way Out for Cotton Growers."

putes that fact. If Mr. Shelton's estimate is correct that "the decrease in the world's production will be 7,500,000 bales from that of 1920," and if his belief is well founded that world "consumption should increase materially and should probably be equal to the pre-war normal for the calendar year 1922," prospect is more alluring than retrospect.

Whatever time must elapse before world recovery, the cotton grower must be financed. But this will not be accomplished by the magic of new corporations. The funds of the larger banks and local economy will continue as prime factors in the situation. Moreover, if all creditors swoop down simultaneously this fall the situation will not be greatly bettered.

Though cotton growing is a key industry and the immediate future may be brighter than is sometimes felt, one prediction seems safe: The cotton grower is not likely to lead the procession toward business revival. Rather he will follow.

DARK SPOTS IN THE AUTOMOTIVE INDUSTRY

The size of the automotive industry makes it one of the key industries to consider in studying the question of business revival. Moreover, everyone knows that the industry has been hard hit by the recent depression, in spite of the much advertised but short lived "spring bulge." Some people have even wondered how so many could afford to "sport" cars, and whether the trade was "plunging" on sales. They also have wondered if consolidations, reorganizations, failures and final control of the industry by a limited number of efficient concerns would not be necessary in the process of stabilizing or reviving the motor car business. What some have felt, Mr. Pleasonton has stated publicly

and with an array of supporting evidence.²⁶

It is always the part of wisdom to learn the very worst about any situation; one can then lay plans for the up-building of a business on sound premises, on facts rather than delusions. There are dark spots, even black, in the automobile situation and these should be known to producers, bankers and consumers. Irrational enthusiasm will not cure over-production, modify the design of cars, reduce operating costs, assure a regular payment of dividends, or cause such critical study of the industry as seems necessary if it is to be operated according to sound economic principles.

If Mr. Pleasonton's conclusion as to the prospects of the automotive industry is sound, too great reliance should not be placed on that key industry in hoping for the speedy, if not immediate, revival of American business.

BANKING AND BUILDING

Nostrums are cheaper than building. Facts are harder to get than are opinions and profanity. And the summer is passing. The immediate future of the building industry might be brighter. So complex a situation cannot be straightened out in a day or week. A statement of its complexity is refreshing.

The facts in Mr. Welton's article²⁷ deserve close study; likewise his criticism of projects to make the Federal Reserve Act a cure-all. It is not too strong a statement to say that he speaks with authority, having been intimately associated with the movement resulting in the passage of the Federal Reserve Act and a close student of the System since it began operation.

From a long run view it is interesting to note that the opinions of Mr. Welton

²⁶ "The Automotive Industry: A Study of the Facts of Automobile Production and Consumption in the United States."

²⁷ "The Building Complex."

and Professor Friday²⁸ coincide with respect to probable interest rates on capital for building, namely, that interest rates will presently be within reach of the home builder. Interest rates are determined in a competitive market and it is as absurd to allege discrimination against capital for building as to confuse commercial and investment banking. But human nature, particularly the instinct of rage, demands a human target. Lately, baiting the bankers has become an official if not popular sport.

IRON AND STEEL SITUATION UNSETTLED

It was hoped that a steel man could be induced to read that "barometer" of business conditions for Academy members. To the less trained observer it looks as if low pressure areas are still to be expected. *Unsettled* seems to be the best term to use in appraising the steel situation.

The expansion of the steel trade is

suggested by a few statistics. According to figures prepared by the American Iron and Steel Institute, the output of steel ingots and castings in the United States for 1920 was 42,132,934 gross tons, against 34,671,232 gross tons for 1919 and 23,613,030 for 1914. The production of all kinds of finished rolled iron and steel in 1920 was 32,347,863 gross tons, a figure exceeded only twice, in 1916 and 1917. This output is about a fifty per cent increase over 1910 production and an increase of 437 per cent over the 1890 total of 6,022,875 gross tons.

The slump this year in output is world-wide. The production of American plants had fallen before July first to amounts variously estimated at twenty to thirty per cent of capacity, with the output of independents less than that of the Steel Corporation.²⁹ The latter had booked tonnage which the independents lacked, but these unfilled orders have been dropping for twelve consecutive months.³⁰ The

TABLE VII. EXTENT OF LIQUIDATION IN FINISHED STEEL PRODUCTS

	Cents per Pound				1917 Peak Exceeded 10-year Pre-War by	July 12, 1921 Exceeds 10-year Pre-War by	Extent of Liquidation from 1917 peak
	10 year Pre-War	Peak July, 1917	Industrial Board March, 1919	July 12, 1921			
Bars	1.42	4.50	2.35	1.90	217%	34%	84-1/2%
Plates . . .	1.488	9.00	2.65	1.90	505%	28%	94-1/2%
Beams . . .	1.50	4.50	2.45	2.00	200%	33%	83%
Rails	1.34	1.79*	2.10	2.10	34%	57%	
Sheets . . .	2.226	8.50	4.35	3.50	282%	57%	80%
Wire	1.62	3.95	3.00	2.50	144%	54%	62%
Pipe	2.194	5.10	4.25	3.55	132%	71%	46-1/2%
Composite	1.684	5.334	3.021	2.493	217%	48%	82%

The Iron Age, July 14, 1921.

* Reached 2.545¢, which was maintained all through 1918; again in 1920.

²⁸ "The Probable Trend of Interest Rates."

²⁹ *Wall Street Journal* of June 22, 1921.

³⁰ Unfilled orders of United States Steel were 11,111,468 tons on July 21, 1920, while on July 31, 1921 they amounted to 4,830,324 tons. The decrease for July was the smallest reported during the last year.

world output of steel in 1913 was about 65,000,000 tons; June production has been at the rate of only some thirty-seven per cent of that figure.²⁹ The reasons for this slump, though interesting, need not be detailed; the present and future position of the industry are chiefly in point in considering the revival of American business.

Following the slump in business came efforts at revival through price cuts and wage decreases. Independents made the first move.³¹ The table on page xxvi shows the extent of liquidation in finished steel products which "represent approximately eighty-five per cent of the annual output of steel in the United States"³²:

Using as a basis the prices formally announced within the last ten days, the advances over the ten-year pre-war average are as follows in representative products³³:

	<i>Per Cent</i>
Billets.....	33
Merchant bars.....	34
Plates.....	34
Shapes.....	33
Black sheets.....	57
Galvanized sheets.....	35
Wire nails.....	52

A wage reduction was announced by the Bethlehem Steel Corporation on July 1, to be effective July 16 at its Steelton (Pa.) plant. This cut amounted to fifteen per cent for all employees except salaried men and ten per cent for them. The Company also announced a reduction of eight to ten per cent in the rents of all houses owned by it. The United States Steel Corporation announced the abrogation, as of July 16, of the "basic" or "over-

time" day put into effect during the war.³⁴ By August 19 further cuts in prices and wages had been noted by the press.

Cuts in the prices of steel apparently caused no great increase in business. *The Iron Age* stated that "less rather than more buying has followed the formal posting of the new steel price lists and steel operations have not improved. Buyers do not question that prices are generally below cost, but they need little steel and wait the effect of labor and freight adjustments."³⁵

Contemplated action by the Federal Government in releasing funds to the railroads would seem to be a favorable factor for the steel business, but the building situation is none too hopeful as an immediate prospect. Though much of this appraisal may be ancient history by the time this volume comes from press, the prospects of the steel industry seem unsettled, in spite of price and wage adjustments already made.

SUMMARY OF THE VOLUME

This volume develops its own summary. Parts I and II unfold a thesis regarding the way business revival will be worked out. Part III contains a warning.

It is not the editor's fault that such a symposium should summarize the business outlook so significantly. The most carefully prepared outline revamps itself till galley is approved. A

³⁴ *The Chronicle*, July 9, 1921. An announcement by Elbert H. Gary, on July 6.

²⁹ *Wall Street Journal* of June 22, 1921.

³¹ The Bethlehem Steel Corporation announced a reduction to be effective July 5. The United States Steel Corporation on July 6 announced reductions to be made by its subsidiaries.

³² *The Iron Age*, July 14, 1921, p. 93.

³³ *Ibid.*, p. 90.

³⁵ Unofficial price cuts for certain products of the United States Steel Companies were reported. The United States Steel corporation announced another adjustment in the wages of its employees, the third to be put into effect since the decline in steel prices began. The reduction to go into effect August 29 will amount to seven cents an hour for unskilled labor bringing the wage rate down to thirty cents an hour or to the level of May 1, 1917.

volume is a growing, changing thing. The thesis as to business revival is double-barreled: That the domestic market plus a more normal foreign trade offers the field for business revival, and that responsibility for such revival can be placed chiefly and squarely with business managers, particularly in respect to reducing costs.

The warning contained in Part III is implicit rather than explicit. The outlook for key industries is still somewhat spotted. The close interrelation of these industries makes necessary more striking evidence of recovery in all before a properly defined revival of business can confidently be predicted. Time, straight thinking, courage, self-help and the restoration of a moral code under which high living, speculative

gain and the breaking of promises are frowned down upon—all these must be coupled with action in alignment with the thesis of this volume regarding the manner of business revival.

The warning runs deeper still. The great American fallacy must be discarded—*Deus ex machina*, and the machine usually political. Salvation will not be wrought by machinery alone, certainly not by governmental machinery in business or for the supposed benefit of business. Machinery does not determine human behavior; it does not nullify nature's controls.

It is the privilege of the editor of this volume to make grateful acknowledgment to the contributors—who fashioned it.

C. H. CRENNAN.

Capital

Shall We Export It or Use It for American Business?

By GEORGE M. REYNOLDS

Chairman of the Board of Directors, Continental and Commercial National Bank, Chicago

FOREIGN trade for the United States is both necessary and desirable. There is no disagreement on this point among bankers, business men, economists, statesmen. However, in seeking a lead for the revival of American business, attention should not be focused on foreign trade to the exclusion of domestic business. American exports have constituted only some six to eight per cent of the total sales of this country during the period of maximum exports. The domestic market is definitely under American control, to be revived if proper thought and action are taken. A clear ray of hope offers in the thought that measures looking toward business revival can be taken at home and at once. This does not mean that foreign trade, particularly in certain commodities, is not important. It does mean that the key to business revival lies in the domestic market and a more normal foreign trade than that of the calendar years 1915-1920.

THE PLACE OF FOREIGN TRADE IN AMERICAN BUSINESS

The basic factors which determine the character and scope of a country's foreign trade will operate to cause the United States to seek out certain commodities needed and to export commodities in the production of which the United States has the greatest comparative advantages.

The climate of the United States prevents the production of certain commodities needed, such as tea, coffee, raw silk, rubber, cocoa, sisal, jute.

These must be bought in the countries where they can be produced. It so happens that the products denied the United States by climatic conditions are found in tropical countries which want and do not produce the commodities this country can and does produce. Direct trading with such countries is therefore natural.

The United States can export goods in the production of which it has the greatest comparative advantages, due to climate, natural resources and the genius of the American people for organization and quantity production. In resources the United States excels in iron, silver, lumber, copper and other well-known basic materials. Soil and climate combine to give an advantage in the production of such goods as grain, cotton, meat and dairy products. The genius of Americans has found characteristic expression in the mass production of standardized articles, particularly of iron and steel. It also has found expression in such devices as cash registers, adding machines, typewriters, sewing machines and many similar articles of clever invention. It seems reasonably clear that whatever is the peculiar product of the climate of the United States may be sold everywhere by Americans in the face of any competition. Whatever product is benefited by peculiarity of American resources, either great supply or accessibility, may likewise be sold against competition. It is probably not too strong a statement to say that whatever is the peculiar product of American genius—whether genius for

invention, mass production or business organization—may be sold by Americans in the face of competition. These influences not only make possible but even compel the export of certain goods.

In sum, the United States can sell in any open market the commodities in the production of which it excels. There will be an interchange of goods with those countries which can supply products needed and require American goods. There will be a continuing pressure to export goods to Europe. Though the total value of exports to Europe has shrunk, the United States will continue to look to Europe to purchase cotton and other products which have so long been marketed there. Indeed, it seems reasonably certain that the United States will have a favorable balance of trade with Europe for some time, though appreciably less than indicated by export figures for the war and after-war period.

It scarcely needs to be said that foreign markets must be available in the years ahead for those commodities which have comprised the major portion of the export trade of the United States during the period 1914–1920. Heading the list of these commodities are raw and manufactured cotton, manufactures of iron and steel, bread-stuffs, meat and dairy products and mineral oil. It seems likely, however, that this export trade of the United States will conform more and more to the value, volume and trend of such trade during the period 1900–1913, rather than to the export trade built up through war conditions.

In determining the place of foreign trade it is just as important to emphasize the point that foreign trade is both necessary and desirable for the United States as it is to emphasize a second point, which seems sometimes to be overlooked, that a continuation of

abnormal exports cannot be expected. American exports mounted both in value and volume to unprecedented proportions, particularly during the years 1915–1920. But once the stimulation of extraordinary demand and dire necessity were withdrawn, there was a noticeable drift back to trade more in alignment with pre-war trends. Any notion that the United States can go on indefinitely selling all kinds of goods in all markets at fancy prices finds no confirmation in the views of experts who have studied conditions or in foreign trade statistics.

The prospect for the revival of American business lies in the increase of business in the domestic markets and in a foreign trade maintained along more natural lines and developed in a more normal way than is sometimes urged by the proponents of plans for the artificial stimulation of foreign trade. Ultimately, of course, if (also when and as) European countries pay the interest due the United States on their borrowings and try to amortize their debts, these payments will be made largely in goods and an unfavorable trade balance, or stream of merchandise imports in excess of merchandise exports, must be expected. Any long time appraisal of foreign trade solely in terms of exports is faulty. Close thinking must compass the problem of imports—and tariffs.

In approaching the problem of business revival, it is true that account must be taken of the fact that although the export trade of the United States has constituted only some six to eight per cent of total sales during the years when exports were at their height, this comparatively small volume of sales has a disproportionate significance, particularly with respect to those commodities in the production of which the United States enjoys distinct advantages. Export trade conforming more

closely to the "doctrine of comparative costs" is as inevitable as it is desirable.

Before developing the remaining points in this paper, that Europe should take steps to help herself and that the export of capital has a distinct effect on business revival, it is necessary to sound the warning that such arguments set up no brief against the position that natural trends of foreign trade are necessary for the United States.

WHAT EUROPE SHOULD DO

The world, as a community of nations engaged in trade, is in an ill-balanced financial position. The United States, and in much less degree Great Britain, are the only countries with an appreciable amount of capital for export. For the purpose of maintaining their own financial solidity, these two countries can ill-afford to supply Continental Europe with funds secured through bank expansion. In fact, they can properly urge that the Continental countries take steps to straighten out their finances as a matter of good faith, if nothing more, before seeking extensive financial aid.

Reports indicate that the nations of Continental Europe have made small progress in balancing their budgets. Deficits have accumulated. These nations must make serious efforts to improve public finances. This course involves stringent measures in the way of deflating inflated paper currencies. It also involves taxation of the most rigorous character. There must be retrenchment in public expenditures. Internal funding loans of greater proportions will doubtless be necessary to reduce floating debts,—particularly to reduce debts to the state banks of issue so as to bring about a reduction in the volume of outstanding bank notes. It seems clear that European nations—

some more than others—must do all these things. But more, they must put such restrictions on imports as to bar out goods that are not vitally necessary for their rehabilitation. It is imperative that the European countries work, tax, save, restrict imports to necessities,—and above all reverse the mad policy of printing bank notes. On these points economists are in agreement.

If Continental Europe does not show a disposition to put her house in order, it is not too much to suggest that British and American financiers, as well as the governments of Great Britain and the United States, should exert at least moral pressure to bring about this result. The United States could even lay down as a condition precedent to its financial coöperation or aid, serious and intelligent efforts at financial and monetary rehabilitation by the countries of Europe.

It is not amiss to note that efforts to correct the ill-balanced financial position of European countries will affect the volume of American exports to Europe. These exports are now diminishing because of the high premium the dollar commands in other currencies. The point should not be lost sight of that one of the chief influences affecting exchange rates are differences in the price levels in different countries. It has been demonstrated in fact as in theory that the parity of exchange between two countries is affected by the purchasing power of the monies of those two countries. If inflation is not checked or appreciably reduced, exchange rates must obtain which will operate as a barrier to the exportation of American goods to Europe. If France, for instance, makes no serious effort at deflation, and America is successful in its deflationary process, the ratio between the price levels in the two countries will show an

even wider disparity, and buying by France in America will be increasingly difficult. It is probably safe to say that variation in price levels, monetary standards and politics now have a major influence on foreign exchange,—a greater influence than trade balances.

One of the conditions necessary for normal trading between the United States and Europe is, therefore, that European countries shall themselves take clearly defined steps to strengthen their exchange position. Moreover, Europe should first help herself before seeking large amounts of new capital in the American market. This is necessary as a matter of good faith, as a common sense way of strengthening her position with regard to making securities attractive in the American market.

THE EXPORT OF AMERICAN CAPITAL

The extent to which European nations have been securing capital in the American market may not be fully comprehended. During the period 1915–1920, foreign loans floated through American bankers aggregated some five billion dollars. Direct loans by the Federal Government to European nations amounted to some ten billion dollars. At the present time the unfunded debt of Europe probably amounts to somewhere between three and one-half and four billion dollars. In all, these figures represent an export of something like nineteen billions of capital.

To show the significance of these figures a comparison may be noted. During the period 1915–1920, the total reported issues of securities—railroad and traction, industrial, municipal and state, and those put out by the Federal Government—amounted to forty-three and one-half billion dollars. Of that total, fifteen billion dollars went to Europe. Europeans received three bil-

lions more than were given to all American railroads, traction companies and industries combined. They received as much as these with state and municipal issues added.

Justification for proposals to furnish Europe with even more capital is sought in the plea that the fortunes of the people of the United States are tied up with those of Europe. Failure, distress and disaster there will mean failure, distress and disaster here. The view is urged that American goods, particularly raw materials, must be sold to Europeans, not only in order to relieve the American market, but also to furnish Europe the materials on which to work in the process of economic rehabilitation. Any proposal to furnish Europe with more capital should receive the closest scrutiny.

In many statements regarding the subject of exporting capital, the idea seems to be prevalent that money is the only form of capital. If the United States makes loans to France and the proceeds of the loans are expended in the United States, it is felt that Americans will be safe because the money is still here. But in such case they have parted with capital *goods* which have been paid for with their own funds. They will receive for these capital goods the customary evidences of debt—bonds or notes which draw interest. This is as truly an export of capital as if gold had been sent abroad, and Americans have identical evidence in either case. American capital resources have been depleted to the same extent in either case. It is immaterial whether the recent hundred million dollar French loan was made in goods or in gold so far as this country's capital account is concerned. Thinking about the export of capital should not be confused by centering attention on money and forgetting the fact that capital goods are exported even though

the money may be spent in this country.

Much the same situation underlies the plan for the proposed Hundred Million Dollar Foreign Trade Financing Corporation. It is a plan to export some part, or all, of a billion dollars worth of capital chiefly to Europe. It is a plan to stimulate exports, but it involves the export of capital goods in return for which Americans would receive interest bearing promises to pay.

The reluctance of many of the larger banks to furnish capital for the organization of this Corporation in such large amounts as have been asked, is no doubt due to the knowledge bankers have of the enormous losses sustained by foreign financing companies during the last eighteen months, and the further knowledge of the fact that almost every foreign dock has been filled with goods which have not been accepted by foreign buyers.

It is a matter of common knowledge that European nations owe the United States Government about ten billion dollars. Payment of the principal amount is regarded in some quarters as problematic. Payment of the interest charges has been deferred. But if payment is made of both principal and interest, such payment must be made largely in goods, that is, the balance of trade over a number of years must run in favor of the obligated nations and be unfavorable to the United States. Under the circumstances it is possible to understand the argument in favor of the cancellation of the debt owed by European nations to the Federal Government. However, it seems unlikely that any such proposal can be seriously entertained, both because it is contrary to the trend of public opinion in the United States and because it might not be acquiesced in abroad. Therefore, the long run view of the effect of capital

advances to Europe and the payment of interest and principal must compass the question of imports and ultimate unfavorable trade balances.

Even if proposed plans for financing Europe are not brought to the point of execution, the prevention of foreign raids on American capital resources is worthy of serious thought. The German war indemnity bonds are an illustration.

It is reported that on July 1, Series A of the German war indemnity bonds to the amount of three billion dollars will be issued. Series B, nine billions in amount, will be issued November 1 next. The interest rate will be five per cent. Series C bonds will amount to twenty-one billion dollars and will be issued under detailed provisions which need not now be considered.¹ The United States will receive none of these bonds, nor indemnity payments of any kind. Nevertheless, the governments that do receive the bonds will probably try to market them in the United States as it is the only great, unrestricted investment market. European nations will command new American capital to the extent that the bonds are bought by American investors.

In any discussion of America's part in European rehabilitation, the question of the export of capital from America is a primary, not a secondary matter. This fact has already been shown by the large amount of capital furnished Europe—some nineteen billions of dollars. The promoters of the Hundred Million Dollar Foreign Trade Financing Corporation have urged that the United States is morally bound to help Europe and selfishly concerned in developing export trade if it would maintain or revive domestic

¹ For a detailed statement regarding the issuance of the German indemnity bonds, see the article by Mr. McDonald in this volume.—[Ed.]

prosperity. But no plan has yet been proposed that does not in effect provide merely for the wholesale granting of commodity credits.

In connection with this or other proposals to furnish Europe with capital, it goes without saying that persistent refusal to coöperate in any way with Europe would have a serious reaction on industry in the United States. About this point there can be no doubt. However, the United States owes to Europe, as well as itself, the duty of keeping its house in order. If the United States does not do the best it can with its own resources it will do less than is possible for Europe. In considering foreign trade and the export of American capital, not only the needs or demands of Europe must be taken into account, but also the capacity of Americans to export capital without seriously affecting domestic industry. Europe would not gain in the long run from the impairment of American resources and capital. Too much emphasis can be placed on what America can do for Europe and not enough on what Europe can and must do for herself. European countries owe America the duty of righting their economic position by strong adherence to sound and sane rules of financing, taxation and fiscal operations. It is important that attention be given the needs of Europe for capital, but it is necessary also to consider American needs.

AMERICA'S NEED OF CAPITAL

No recourse to statistics is really necessary to confirm the truth of the statements so often made that American railroads have not received, for several years, adequate additions to their capital—additions which were necessary to efficient transportation service. It is common knowledge that renewals, additions and betterments

are needed. Some idea of the situation, however, can be gained from the fact that reported issues of railroad and traction securities from 1909 to 1914 averaged almost one billion dollars each year, while from 1917 to 1920 inclusive, the average was less than four hundred and fifty million dollars a year. It seems a reasonable inference that the export of American capital to Europe must have helped to stay railroad progress and development. Similarly, the export of American capital must have had an adverse effect on building operations and must have been a contributing cause to the present housing shortage. Capital needs for building are problematic. Estimates range from one to five billion dollars. Even the most conservative figures, however, show the need for capital in the United States if building is to play its full part in the restoration of domestic prosperity. Indeed, in every field of domestic endeavor the shortage of capital, evidenced by high interest rates, has been more or less seriously felt and although the United States is now a creditor nation, it must be recalled that at no time in its history, prior to the war, have the people of the United States accumulated enough capital for American needs. The United States was regularly a debtor nation.

INTEREST RATES

Business men in the United States have been greatly disturbed over high interest rates. Bankers, however, are not to be charged with the responsibility for this condition. There has not been enough capital to meet the demand at low interest rates. Bidding for the available supply of capital has been vigorous and always in competition with hard-pressed European countries. The prospect of lower interest rates is remote unless the demand for

capital subsidies to a great extent, or unless capital accumulations are greatly increased. With Europe still bidding for capital, interest rates are not likely to take a marked and immediate downward trend. Prior to the war, the average amount of new securities issued, recorded and unrecorded, is estimated at three billion dollars a year. During and since the war, it is estimated that these issues have averaged six billions and yet apparently they have not been sufficient to meet capital demands at a low rate of interest. With a lower and lowering price level, domestic capital requirements should diminish, but there will also be a diminution in capital accumulations measured in terms of dollars. The probable trend of interest rates, so closely related to the export of American capital, raises the question of the capacity of the American people to save.

SAVINGS NOT INDEFINITELY ELASTIC

If the savings of the American people were indefinitely elastic, there would be no problem connected with the export of American capital. There would be no particular problem of interest rates. The hard fact, however, is that savings are not indefinitely expansible. The amount of capital accumulated depends on the national income and the capacity and disposition of the people to save.

Any nation's income has limits. For 1917 the best estimates fixed the total income of the American people at fifty to sixty-five billion dollars. Assuming twenty million families at that time and a bare subsistence cost of living for each at a thousand dollars a year, twenty billion dollars were needed for what may be called a "human maintenance fund." This fund is certainly not less today. Out of the remainder of whatever the national

income may be must come all expenditures for comforts, luxuries, taxes and also capital, whether for American industry or for foreigners, or both.

In considering the possible savings of the people of the United States it is helpful to divide the total number of families into income groups. Families with incomes of \$1,500 or less can save practically nothing. Families whose incomes range from \$1,500 to \$5,000 are disposed to spend rather than save, after making their customary investments in insurance and homes. Families with incomes above \$5,000 have had their resources eaten into by income and surtaxes. While the greater proportion of capital accumulations during the period 1900 to 1910 came from the last named group and from corporation surpluses, income and profits taxes have cut heavily into what might otherwise have been industrial capital. If the tax program of the United States could be radically revised, this source of capital would be restored, but it seems unlikely that such modification of tax rates will be made as to restore the position of the well-to-do or corporations with respect to this matter of furnishing capital. With the savings power of the high income group seriously impaired, and the low income group without financial leeway, dependence for capital rests more largely on the middle income group—families with incomes from \$1,500 to \$5,000 a year.

If savings cannot be indefinitely increased, the question arises, "To what use shall capital accumulations be put?" Shall they be turned in large measure to Europe or put to work in the United States? Since savings are not indefinitely expansible, a decision is necessary as to whether they shall be spent here to furnish Europeans with capital goods, or spent here to furnish American industries with such capital goods.

Or perhaps the question should be put thus, To what extent shall American savings be used to furnish Europe with capital goods and to what extent used to furnish capital goods for the rehabilitation of American industries? One thing at least seems clear. The United States cannot export its capital and have it too.

The evident purpose of the proponents of the various plans for financing Europe is to sell American goods,—hence the suggestion that capital advances be conditioned on the expenditure of the funds in American markets. Thus, any real or supposed surplus of goods can be reduced or disposed of—at a price. This plan was followed during the war with the result that there has been an accumulation of Europe's obligations in this country on which interest charges may be paid, but there is no general and confident expectation of the prompt repayment of the principal. The point must not be lost sight of that if payment is made, it will be made chiefly in goods. Europe's purpose in seeking American capital is probably to buy not manufactured products beyond immediate needs, but rather raw materials and equipment. With these her labor can produce finished products to be sold back to the United States or to other countries, perhaps in competition with America.

The scheme of financing sales to Europe would be more alluring if a revival of business on the high price level of the first part of 1920 could be foreseen. But the maintenance of such a price level is neither possible nor desirable. It has already been lowered everywhere. The revival of American business on the basis of lower prices is inevitable. If the price of goods is to be lower, costs must be lowered enough to give a reasonable margin of profit. This applies not

only to production for the domestic market but production for foreign markets. The lowering of costs demands a higher degree of efficiency in production. This higher efficiency must be found in capital as well as labor. There must be the use of adequate and efficient capital equipment. American transportation, in particular, has capital needs that must be met. It is important, therefore, in fact of major importance, that the question of business revival be considered in relation to the problem of the extent to which American capital should be exported.

THE REVIVAL OF AMERICAN BUSINESS

The main thread of the argument in this paper is that the revival of American business will be worked out on the basis of the domestic market and a more normal foreign trade. In turning attention to domestic trade the question of capital needs at home must receive attention. In considering American export trade, due regard must be had not only for schemes for financing that trade, but also for the "doctrine of comparative costs." Full thought must likewise be given to the correction of monetary conditions in Europe through deflation, taxation and economy. The fact must not be overlooked that Europeans must restrict imports. If European nations are to deflate their currencies, pay taxes and work, they will have less demand for anything from the United States other than what aids them to manufacture goods and sell them chiefly in the American market. If certain of the European nations are impoverished, their position will not be greatly improved by America's financing sales of goods without adequate consideration of the risk involved or thought of the extent to which capital should be exported. If Europe is impoverished,

improvement of the condition of her peoples will not be brought about by forcing America to the same condition.

Foreign trade has been emphasized to such a degree of late that thought of business revival is largely in terms of exports and foreign financing. If it were necessary for the people of the United States to await the rehabilitation of Europe before they could enjoy a fuller measure of prosperity, they might have to wait a very long time. Just how long, no one knows! Such a prospect is far from comforting at a time when gloom enough engulfs American business. It was in the hope that a shift of emphasis from foreign to domestic trade would carry

a message of encouragement, that this paper was prepared. An American perspective shows that measures at home can and should be taken. There need be no paralysis of action with the world's greatest domestic market at hand and controllable. To emphasize this point, an exaggerated statement might almost be risked, that if we take care of our ninety-two, or ninety-three per cent of domestic business, the seven per cent of foreign business will take care of itself.

This is calculated to be a message of comfort and cheer to all who have not lost the power of self-help. What is needed is courage, straight thinking, the restoration of a sound moral code, —but above all, *action*.

American Trends in Foreign Trade

By F. E. ST. AUSTELL

Continental and Commercial National Bank, Chicago

THE United States is facing extraordinary conditions with respect to foreign trade and finance, but beneath these extraordinary conditions may be seen indications of the working of natural tendencies. Foreign trade cannot indefinitely remain abnormal.

When a movement to "capture" foreign markets was started, there were a few maligned authorities who advised caution, a policy of careful progress rather than hasty plunging into the intricacies of foreign trade by those who were not sufficiently equipped with practical knowledge of the conduct of that trade. British and European papers did not scoff at American efforts to capture markets. Many of them, however, did point out that the United States would show wisdom in adhering to the development of foreign commerce along lines

with which it was familiar. The history of England's overseas commerce proves that foreign trade is of slow and tedious growth, not springing overnight into full bloom as many American merchants and manufacturers apparently expected.

The foreign trade of the United States during the years of the war, and in fact until the latter part of 1919, was not dependent on real trading or salesmanship. Goods were asked for and supplied, the main object being the satisfaction of demands as quickly as possible. Such trading is not normal.

Indirect or triangular trading, if it comes at all, is likely to be of long and slow development. The trend of foreign trade of the United States has been direct. English shipping has a large proportion devoted to "tramp trading," a proportion estimated at more than fifty per cent of its mercan-

tile marine. British tramp steamers seek trade and in the search are not confined to definite routes. Hence it is common to find goods bought by British merchants, say in the Baltic ports, with the proceeds of goods bought in the United States. British ships carry nitrates from Chile to a point where they are needed and then load up again with goods needed elsewhere. Barter, buying goods with goods, is still an essential of foreign trade, but the United States has hitherto confined itself to direct trade and wherever possible, direct payment. Necessity alone is likely to modify this trade habit.

The necessity which will make such modifications will come of a congested population on the seaboard and the consequent turning of attention away from the still undeveloped resources of the interior and the opportunities for business afforded there, to opportunities for trade in foreign lands. Such a change would be difficult of full accomplishment without a change in government policies—such as free trade or very much lower tariff duties, the establishment of free ports, and, generally, a policy of what is commonly known as economic imperialism.

NATURAL TRENDS OF FOREIGN TRADE

As it has been well said, "The United States can export goods in the production of which it has the greatest comparative advantages, due to climate, natural resources and the genius of the American people for organization and quantity production." This "doctrine of comparative costs," would, therefore, class as natural and desirable the export of such commodities as foodstuffs, raw materials, automobiles and accessories, machinery of all kinds, typewriters, sewing machines and many articles of quantity production.

Imports will naturally bulk in those commodities which cannot be produced in the United States because of climatic conditions. There is no domestic production of tea, coffee and cocoa. The best China clay is probably imported from England. Without the forests of Assam, many industries would be at a loss for a supply of shellac; the rubber plantations of the Dutch East Indies and Brazil are necessary to the automobile industry, and so on.

The United States has become accustomed to a favorable balance of trade entirely without precedent. However, as domestic production resumes a pre-war character, similar perhaps to that of the period 1900-1913, it seems safe to predict a return of foreign trade conditions similar to those obtaining during the same period. The favorable balance will probably be maintained for some years, but a gradual reduction of that balance until an excess of merchandise imports over merchandise exports is reached, is probable. The balance may be reduced by diminishing exports or by increasing imports or by both causes together.

A DECREASED FAVORABLE BALANCE

A swing towards alteration of the trade balance was clearly indicated during the latter half of 1919 when exports decreased and imports increased. Exports at that time were going principally to European countries and, as shown in the following table, were greatly reduced during and after July, 1919 when the peak showing a favorable trade balance of \$941,000,000 in one month was reached.

(Units of \$1,000,000)

Half-year	Exports	Imports	Balance
1919			
January-June	4,201	1,654	2,547
July-December	3,962	2,342	1,620

As already noted, in the period from July to December, 1919, the reduction of the favorable balance was due more to increased imports than to decreased exports.

The decline of exports to Europe has continued and the following table shows clearly a steady drop in the first half of 1921, even considering the drop in the price level.

in foreign trade values of more than \$3,000,000,000, both imports and exports declining. Exports decreased to the extent of one billion and a half dollars compared with the last previous fiscal year, while imports fell off in a slightly less degree, though still greater than during any year since 1917 with the exception of the fiscal year 1920. Figures from the same source show a

TOTAL VOLUME OF EXPORTS

1921	England	France	Germany	Italy	Total European Countries
January.....	\$102,351,376	\$35,825,135	\$48,862,037	\$29,356,813	\$325,530,940
February.....	86,042,893	20,432,178	36,619,713	28,198,613	241,793,255
March.....	69,623,415	19,597,301	30,502,988	16,908,314	199,222,578
April.....	74,781,288	13,581,753	19,143,211	13,634,101	174,645,581
May.....	71,340,509	9,862,731	20,481,412	22,555,727	176,822,795
June.....	52,072,939	12,675,598	30,795,515	22,742,637	173,252,536

That the steady falling off in value of exports to all countries which was indicated in the latter part of 1919 has continued during 1920 and the first six months of 1921, is evidenced by the following table:

TOTAL EXPORTS OF MERCHANDISE BY MONTHS

	1920	1921
January.....	\$722,063,790	\$654,271,423
February.....	645,145,225	486,281,597
March.....	819,556,037	386,680,346
April.....	684,319,392	340,338,729
May.....	745,523,223	329,746,379
June.....	629,376,757	340,000,000
July.....	651,136,478	
August.....	578,182,691	
September....	604,686,259	
October.....	751,211,370	
November....	676,706,011	
December....	720,852,515	

Figures issued by the Department of Commerce covering the fiscal year ending June, 1921, indicate a falling off

slight increase in exports for June, 1921, the first increase noted since December, 1920. The June total of \$340,000,000 exports is however only about half of the value of exports recorded for June, 1920. The difference is mainly accounted for by reduction of prices rather than quantities.

WHAT AMERICA ACTUALLY EXPORTS AND IMPORTS

In connection with the question of exports, a few facts are significant. It has been customary to refer in somewhat vague terms to exports. Statistics show at a glance relative values that are often beclouded in generalities. "Exports" mean particularly those exports shown in the table following. They have been the most important exports year after year. And, parenthetically it may be noted, that according to careful estimates the export trade of the United States represents

at most not over ten per cent of the total volume of sales; from six to eight per cent is probably a more accurate measure.

products are needed throughout the world. The United States can assist in supplying that need. Cotton can be produced in quantities for export

RATIO OF EXPORTS OF SELECTED COMMODITIES TO THE TOTAL MERCHANDISE EXPORTS OF THE UNITED STATES (BASED ON VALUES) DURING THE PERIOD 1913-1920

Calendar Year	Cotton			Manufactures Iron and Steel %	Bread-stuffs %	Meat and Dairy Products %	Mineral Oil %
	Raw %	Manufactured %	Total %				
1913.....	23.1	2.2	25.3	5.1	7.1	5.8	5.0
1914.....	16.2	2.3	18.5	9.4	14.6	6.6	6.6
1915.....	11.7	1.6	13.3	10.9	14.8	7.8	4.0
1916.....	9.9	2.3	12.2	15.8	8.6	5.7	3.6
1917.....	9.2	2.5	11.7	19.9	10.1	7.0	4.0
1918.....	10.9	2.9	13.8	16.8	13.0	15.3	5.5
1919.....	14.3	3.4	17.7	12.2	11.6	14.6	4.3
1920.....	13.8	4.8	18.6	13.5	13.1	6.6	6.6
Average 1914-1920.....			15.1	14.1	12.2	7.6	4.9

The following table gives the same ratios for the period from January to June, 1921:

and many parts of the world need that cotton. The articles referred to represent sixty per cent of the exports

Cotton			Manufactures Iron and Steel %	Bread-stuffs %	Meat and Dairy Products %	Mineral Oil %
Raw %	Manufactured %	Total %				
8.4	2.4	10.8	18.1	14.5	7.4	9.4

The United States is blessed with boundless acres which can produce grain under conditions that leave an exportable surplus. Many European countries may produce more wheat per acre, but they have not the acres to compete with American production. The American genius for organization renders it possible to export manufactures of iron and steel to advantage, also mineral oils. Meats and dairy

of the United States and there appears every probability that they will continue to do so.

It may be asked what will the United States take in return for these and other exports. The United States produces neither tea, coffee nor cocoa. It will therefore send to Brazil and other coffee-producing countries such goods as those countries can absorb in exchange for coffee. The same applies

to tea and cocoa. The United States produces great quantities of hides and skins, but not enough. These commodities will therefore be imported in the required quantities. The plantations of the Dutch East Indies and Brazil will continue to supply rubber. India will be called upon for jute, shellac and its quota of hides and skins. The United States needs hemp and sisal. These may be regarded as natural imports. Silk and sugar are among the important articles, imports of which show considerable increase from the latter part of 1919. What the United States particularly needs is shown in the table below. The imports which show an increase are not European, but come from Latin America and the Orient.

TRADE OPPORTUNITIES IN NON-EUROPEAN MARKETS

Since the United States has increased imports from non-European markets, it is well to consider what the export trade of the United States has been with all markets other than those of Europe during the period from 1914 to June, 1921. The table on page fourteen indicates the trend of export trade for the period referred to with Canada, Australia, China, India, Japan, Brazil, Argentine, Chile, and the total of exports to South American countries.

Exports to Canada show a steady increase year by year with the exception of 1919. The year 1920 again shows a healthy increase, while the returns for the first six months of 1921 seem to in-

Articles	Unit (Millions)	1917	1918	1919	Increase in 1919 over 1918
Hides and Skins.....	lbs.	631	362	745	383
Coffee.....	lbs.	1,287	1,052	1,334	282
Cane Sugar.....	lbs.	4,941	5,167	7,020	1,853
Raw Silk.....	lbs.	37	33	45	12
Crude Rubber.....	lbs.	406	326	536	210

What will this country take from Europe? That is a matter difficult to decide under existing conditions, but indications point to the fact that Europe must in the long run be regarded as a competitor. Woolen goods of high quality will be imported, but probably not the cheaper grades. Fine cottons, quality goods which may be sold here at high prices and which are not produced here, will naturally be welcomed. Plushes, velvets, gloves, cosmetics, may also be added to the list, but an habitual and probably natural desire to restrict the influx of directly competitive goods is already apparent.

dicating that the final figures for the year will be nearer those of 1916 than those of 1917, 1918 and 1919.

The dislocation of commerce is perhaps nowhere more manifest or brought nearer home than in the present relations between Canada and the United States. Canada finds itself in the unfortunate position of having to buy for cash and sell to her British and European customers on credit, or not sell; it also suffers from its inability to return to a gold basis. The Dominion is practically on a paper basis and when Canadian funds are quoted at a discount of twelve per cent the onus of the discount may be placed about as

follows: seven per cent is due to being on a paper basis and five per cent due to adverse trade balance. A return to normal conditions will find Canada still high on the list of United States foreign customers, and it is to be hoped that external capital will flow into Canada to help development of resources as was the case in the earlier days in the United States.

Exports to Australia have not shown a backward trend since 1914. During the year 1919 Australia took from the United States goods to the value of over ninety-five millions of dollars and increased that amount in 1920 to nearly one hundred and twenty millions. The figures for the first six months of 1921 indicate that exports to the value of more than fifty-one million dollars have been shipped from the United States to Australia. Australia, in fact Australasia, is growing nearer in terms of distance because of quickening connections, and that it is growing nearer in business sympathy is indicated by the vastly increasing inquiries and the number of business men from the Commonwealth visiting this country.

From China come appeals for goods of all kinds. The great need of China today is increased transportation facilities. She is importing great quantities of machinery, especially agricultural, milling and mining machinery. Development of the resources of the mighty republic will naturally lead to increased commerce with the United States. Trade with China is comparatively new to the United States, but statistics show a growth in value of exports from forty-five million dollars in 1914 to nearly one hundred and forty-six millions in 1920. China is endeavoring to change its status and become an industrial nation. The process will be interesting to American manufacturers.

There appears to be a widespread

EXPORTS OF DOMESTIC AND FOREIGN MERCHANDISE BY COUNTRIES DURING THE PERIOD 1914 TO JULY, 1921

Calendar year	1914	1915	1916	1917	1918	1919	1920	1921 Jan.-June
Canada.....	\$310,616,232	\$345,045,836	\$604,908,190	\$828,919,971	\$886,877,584	\$734,244,319	\$971,854,093	\$247,183,248
Australia.....	45,024,718	52,335,439	64,334,821	58,967,578	79,549,198	95,085,059	119,912,558	51,672,045
China.....	20,307,701	19,748,283	31,516,140	40,292,059	52,958,520	105,539,583	145,736,732	51,712,408
India.....	10,378,806	15,709,580	23,891,754	33,599,396	40,392,458	67,505,528	99,857,517	33,097,722
Japan.....	41,750,979	45,731,903	109,156,490	186,340,304	273,774,685	366,364,403	377,961,896	85,622,843
Brazil.....	23,275,894	33,952,551	47,669,050	66,157,952	57,391,417	114,696,309	156,740,365	35,147,325
Argentina.....	27,127,958	52,840,905	70,874,258	107,098,895	105,104,548	155,899,390	213,725,984	67,876,352
Chile.....	13,627,618	17,816,114	33,392,887	57,549,304	66,404,300	53,121,087	55,310,465	17,806,494
Total South America.....	91,013,339	144,128,681	202,666,818	311,893,923	302,709,610	441,747,728	623,910,163	107,615,000

idea that British goods and British institutions have such a hold on India that American competition is almost impossible. That is not true. India is apparently a seething, kaleidoscopic mass of unrest, but beneath that unrest there is a very real spirit of progress. Trade bureaus and commercial associations daily receive large numbers of inquiries from India showing a desire to purchase iron and steel, hardware, machinery, paper, machine tools, office supplies, agricultural implements, safes, wire fencing and numerous other articles. In 1914 this country sent goods only to the value of nearly ten and a half million dollars to India. But the volume of exports has steadily increased, doubling by 1916, and reaching the total of over ninety-nine millions in 1920. India will well repay study. It is a land of great commercial promise.

Turning from India to Brazil, we find a steady growth of trade during 1914, 1915, 1916 and 1917, and an abnormal doubling of values during 1919 and 1920. Coming down to date, it will be seen that exports to Brazil for the first six months of 1921 are stated at just over thirty-five millions, indicating a return to more normal values.

The same trade trend is found in the case of Argentina. The growth of exports is apparent in 1914, 1915, 1916 and 1917. The increase in 1918, 1919 and 1920 is striking, but the first six months of 1921 show the same trend that is indicated in exports to Brazil.

Returns showing the value of exports to Japan are equally interesting. The abnormal increase in the period from 1916 to 1920 is again evident, while, like those of Argentina and Brazil, the figures for the first six months of 1921 reflect the universal drop in values.

FUTURE TRADE TRENDS ONLY PARTLY PREDICTABLE

To sum up, it would appear that non-European countries may offer more favorable opportunities for trading than are presented by European countries, a situation that was developing during the period 1900-1913. As before the war, cotton, breadstuffs, manufactures of iron and steel, meat and dairy products and mineral oils will continue to occupy the prominent places in lists of exports. There may be an exclusion of many commodities that swelled the total during the abnormal war period.

The downward trend of exports, clearly indicated in the latter half of 1919, was long ignored by many exporters, and it was hard to drive home the conviction that exports on such a vast scale as they had become accustomed to during the period of war could not be continued indefinitely. The favorable balance running into billions apparently conveyed no warning. American manufacturers were urged to capture the world's markets and a mighty commercial war was predicted, a fight for supremacy in the world's market. So far as the United States is concerned, it is probable that such fight as is necessary will be centered in non-European countries, in markets that are susceptible of development.

Predictions as to what the export trade of the United States will, or should be, are rendered doubly difficult by the presence of many unpredictable factors. Political stability in Europe, a return to sound monetary standards, tariffs, a more even distribution of the gold which is now held by the United States, are such factors, and while these are more or less subject to conjecture, a return to foreign trade controlled by natural tendencies can be hoped for, but not definitely foreseen.

The Reparations Settlement—Its Relation to American Business Revival

By JAMES G. McDONALD

Chairman, Executive Committee, Foreign Policy Association

OUR business depression is primarily European, not American, in its origin. More than two hundred million human beings east of the Rhine are underproducing and underconsuming. They cannot pay for the necessities, much less the luxuries, of life. Now that the artificial stimulus of the war has ceased, agriculture, industry and commerce in all parts of the world are seriously affected and must continue to be until something like normal conditions are reestablished in eastern Europe and Russia. For us the effects of post-war deflation have been unusually severe because of the extraordinary expansion of our foreign trade since 1914. The extent of contraction during the last twelve months is strikingly illustrated by the figures just published by the Department of Commerce. During the fiscal year ending June 1, American foreign trade, exports and imports, as compared with the previous year, has fallen off more than \$3,000,000,000. For June, 1921, exports and imports total \$643,000,000 less than for June, 1920. This is a loss at the rate of more than \$7,500,000,000 a year. If we are not to be forced drastically to readjust our export business to proportions as modest as those before 1914, we must concern ourselves with the restoration of the European market, which so far as central and eastern Europe are concerned, depends primarily on Germany.

No serious student of the European economic situation doubts that the primary consideration in Germany's economic recovery is her capacity to

meet the reparations and obligations which she has assumed. It is now everywhere recognized that, had the amount of the reparations been definitely fixed at the time of the Peace Conference within Germany's recognized ability to pay, the world would today be immeasurably farther on the road towards economic rehabilitation. The failure to agree upon a definite figure until more than two and one-half years after the Armistice (the Allied Reparations Protocol, which was an ultimatum, was accepted by Germany May 10, 1921) has materially retarded Germany's recovery and consequently her ability to pay, has delayed very seriously the restoration of anything like pre-war economic conditions in eastern and southern Europe, so closely related commercially to Germany, and has been an important factor in bringing on the present industrial depression here by destroying the foreign market for much of our export products, particularly cotton, wheat, copper and machinery. It is, therefore, to the interest of the Allies, to the rest of Europe and to ourselves, that the recent assessment of Germany's obligations should now be considered not from the point of view of war passions or from that of abstract justice, but rather with a view to determining whether this settlement finally agreed upon does tend, in fact, to strengthen the recuperative forces in Europe, or whether this arrangement ought to be modified if it is to contribute most largely to the reconstruction of the shattered fabric of Europe's industrial, agricultural and commercial life.

THE REPARATIONS SETTLEMENT

On May 1, the Reparations Commission, acting in conformity with the Treaty, announced that it had fixed the capital sum of Germany's obligations at 132,000,000,000 gold marks, or approximately \$33,000,000,000. It is not clear whether the, approximately, \$1,500,000,000 already paid before May 1 by Germany is to be deducted from this amount. According to the Treaty provisions, the Reparation Commission was required to outline a program for the payment of this entire amount with interest at 5 per cent within thirty years. This would have meant an annual payment by Germany of more than \$2,000,000,000—a commitment clearly impossible.

Taking this difficulty into consideration, the Supreme Council of the Allies, doubtless in consultation with the Reparations Commission, worked out a schedule of payments which constitute Germany's real obligations. This schedule accepts the figure of \$33,000,000,000 as the total of Germany's capacity and requires the payment annually of \$500,000,000 plus 26 per cent of the value of German exports. It is calculated that at present this percentage would amount approximately to \$250,000,000, thus bringing the annual payments to three-quarters of a billion dollars. These payments will, of course, be increased proportionately as Germany's export trade increases. This program, then, is, as Mr. Paul D. Cravath pointed out in his detailed article on "The Reparations Settlement" in *The New York Herald*, Sunday, June 26, "the measure, and the sole measure, of the annual payments which Germany is required to make under the new agreement."

It was further provided that the German government deliver before

November 1, three series of bonds which together would represent the capital sum of her total obligations. The first series are "A" bonds, to be delivered by July 1, for \$3,000,000,000; the second series, "B" bonds, to be delivered by September 1, for \$9,500,000,000; the third series, "C" bonds, to be delivered before November 1, for approximately \$20,500,000,000. These last, however, are not to have coupons attached, nor are they to bear interest until German industry and trade have recovered sufficiently to pay more than the assessed 6 per cent on the first two bond issues.

It is very surprising that the *Federal Reserve Bulletin* for June, 1921, on page 650, implies that these "C" bonds bear interest in the same way as do the "A" and "B" bonds. This suggestion appears to be in direct contradiction to the text of the Reparations Protocol, reprinted on pages 674-676 of the same issue of the Bulletin and also in contradiction to the official explanation of the Protocol given by Mr. Lloyd George in the House of Commons on May 5, reprinted on page 651.

An amount equal to 6 per cent upon the \$12,500,000,000 of the first two series of bonds is to be applied to the payment of interest and sinking funds for Series "A" and "B." This payment is to be made only upon bonds actually outstanding, the remainder to be paid into the sinking fund for the redemption of bonds at par.

Series "C" bonds are to begin bearing interest when the Reparations Commission is convinced that the German payments of \$500,000,000 plus 26 per cent of the exports, is more than sufficient to provide for the interest and sinking fund charges on the Series "A" and "B." In any event, the priority of lien of the bonds is to be in the alphabetical order.

CRUX OF SETTLEMENT IS GERMANY'S FOREIGN TRADE

The crux of the new program lies in the provision that the amount of Germany's annual payments, as well as the period required for satisfaction of her entire obligation, depends primarily upon the volume of her foreign business, more especially her export trade. It is, therefore, possible to estimate with some degree of assurance the probabilities of Germany's capacity to meet her commitments.

Much confusion as to Germany's capacity to pay has been caused by writers and readers not differentiating carefully enough between the gold mark of the normal value of about 24 cents and the paper mark, at present fluctuating between the value of 1.25 cents and 1 cent and a half. The minimum annual payments of Germany, therefore, in terms of paper marks must reach the total of at least 12,000,000,000 paper marks.

It is also frequently urged that, since the Germans at Versailles two and a half years ago offered a reparations payment of 100,000,000,000 gold marks at the rate of 4,000,000,000 annually, surely they can now pay interest at 5 per cent and 1 per cent amortization on a capital sum of 132,000,000,000 gold marks. It should be remembered, however, that Germany predicated this offer upon several conditions, most of which have been ignored, such as the capital sum not bearing interest, the retention of all of German Poland, Silesia, all her merchant marine, the Saar Valley, the colonies, etc. Moreover, since the spring of 1919, general

financial disintegration has set in and the reichsmark has depreciated from 8 cents to less than a cent and a half.

It is also suggested that Germany must be prosperous because of the issues during the past year of new securities aggregating approximately 14,000,000,000 marks. But here again we are dealing with paper marks, which means that the total amount of securities issued represents perhaps less than 1,000,000,000 gold marks, or approximately \$250,000,000. This total is less than one-tenth the amount of securities issued in the United States during the same time. In the same way startling statistics describing vast dividends of German corporations should be read in the light of these being paper mark dividends on what in most cases is a gold capitalization.

Some estimate of Germany's capacity to make the reparation payments out of the excess of her exports over imports can be made from the trade figures below, for the years immediately preceding the war.

On an average her exports were less than her imports by about 1,500 million marks annually. This deficiency was made up from proceeds of foreign investments, proceeds from shipping, insurance, etc. The bulk of her foreign investments have now been wiped out or are impounded; her mercantile fleet has been taken over by the Allies and her foreign insurance business cannot amount to any considerable item for some time.

It should also be borne in mind that of Germany's export trade before the war, more than 600 millions consisted

IN MILLION GOLD MARKS

	1913	1912	1911	1910	1909
Imports	10,770	10,691	9,705	8,934	8,526
Exports	10,096	8,957	8,106	7,474	6,594
Excess of Imports	674	1,734	1,599	1,460	1,932

of coal. It is very doubtful whether she can consider coal as an item of equal importance in her future balance sheet, inasmuch as she is committed to deliver all that she can reasonably spare to the Allies directly on the reparation account. To what extent she will be able to maintain her steel and iron trade (which amounted annually to two billion marks out of ten) is somewhat doubtful, since in the future she will have to import much of her iron ores, which were formerly within her own boundaries, and in view of the limited supply of coal available for that industry.

With her exporting powers thus diminished, her shortage of foodstuffs, fertilizers and other raw materials has become so serious that it is not improbable that during the next few years the balance of trade will be more heavily against Germany than before the war. If through her export business she is unable to pay for the raw materials required for her 60,000,000 people, the general standard of living must be materially reduced and the average rate of production substantially increased. How far this can be done will depend both upon the endurance and morale of the masses and the degree of governmental control that may safely be imposed.

It is a grave question, however, and one carefully to be weighed, how far this "sweating process" of a people may safely go; because the crippling of Germany's foreign purchasing power and of her domestic coal supply (which of necessity is involved in this plan) means continued under-nourishment, poor clothing, freezing and hard work for the poorer classes—a condition which we politely call reduced standard of living. To go too far in this respect would not only be cruel and destructive, but would also, incidentally, be poor business.

THE GRAVEST QUESTION IS WHAT THE WORLD CAN AFFORD TO RECEIVE FROM GERMANY

But even were it possible for Germany, by reducing her standard of living and increasing her productivity, to create a sufficient surplus for export to fulfil the full measure of her reparations obligations, it is very doubtful if a market could be found for her products. Indeed, in the light of the nearly two years' experience that the Reparations Commission has had in executing the reparation clauses of the Treaty, it is now evident that the problem of securing adequate indemnity from Germany is not so much a question of what Germany owes, or even of what Germany can pay, but rather, as was brilliantly pointed out in a recent address by John Foster Dulles, formerly counsel to the American Peace Commission and member of the Reparation Commission and Supreme Economic Council, a question of what the Allies and the rest of the world think they can afford to receive from Germany.

Germany's initial payment as fixed by the Treaty itself was to be \$5,000,000,000, payable before May 1, 1921. The Allied experts during the Peace Conference estimated that these payments would be made principally through ships, coal, machinery, reconstruction material, chemicals, dyestuffs and German labor. The story of the growing unwillingness of the Allies to receive these forms of payments, the only ones which Germany has available in values sufficiently great to count materially towards reparation payments, is illuminating.

German ships are today a drug on the market. British ship owners have protested against the receipt of any more enemy shipping. The Leviathan, rotting in the docks at Hoboken, is another case in point. Moreover, the

Allied experts have recommended that Germany be relieved from the provisions of the Treaty requiring her to build ships on the reparation account.

Coal would seem to be one of the most important of German means of paying reparation. France needs it. Most of the rest of Europe is naturally a consumer of German coal. But the interests of Britain, the largest exporter of coal to the Continent, would be seriously jeopardized by the unrestricted utilization of German coal for indemnity payments, not merely because it would mean direct competition in the coal markets, but also because British industry has long enjoyed the advantage of cheap fuel, in part because of the high price which British coal has commanded in the continental markets.

But what of machinery and reconstruction materials? Surely these economic values France and Belgium have been willing to utilize in large measure. The Treaty gave these states practically an absolute right to requisition whatever German materials in these classes they might desire. Up to October of last year, a report of the Reparation Commission shows that not a single piece of machinery has been accepted by France and very few by Belgium. The French insist that to utilize German machinery and supplies would be to give the German manufacturers a virtual monopoly in supplying parts and replacements.

German dyestuffs and chemicals are everywhere unwelcome. German labor—has it been more welcome in the work of reconstruction in France? Though France strenuously insisted upon her right to demand such assistance, and though Germany has frequently volunteered to supply laborers in large numbers, this form of assistance has not been accepted.

It is thus evident that Germany's

ability to pay through the mediums here discussed—ships, coal, machinery, chemicals, dyestuffs and German labor—is seriously limited by the Allies' capacity or willingness to receive payment in these forms. In any event, the bulk of whatever Germany has in liquid assets, ships, assets and securities in Allied countries, rolling stock, etc. has already been taken over. It has been suggested, however, that Germany might transfer to the Allies large blocks of securities in her leading corporations. According to some of the American experts at the Peace Conference, such securities have been unacceptable because of the fear that their receipt might create in the Allied countries an undue interest in the economic recovery of Germany.

But would not the transfer of ownership of considerable portions of German securities to the Allies permanently impair Germany's capacity to make subsequent reparation payments in other forms? Would not the payment of interest and dividend charges to foreign holders of basic securities tend still further to depreciate the reichsmark to such a point as to make it almost valueless? The history of German finance since the Armistice is illuminating on this point. In November, 1918, there were several million marks gold due to neutral countries from Germany. If a statesmanlike program had been worked out at that time, enabling Germany to pay reparations by creating obligations in amounts clearly within her power to pay, and if, at the same time, the blockade had been lifted and Germany had been supplied with the raw materials essential to her rehabilitation, the neutral countries would doubtless have accepted some sort of paper obligation from Germany in payment of the amounts due them. However, since Germany's obligations to the Allies remained indefinite and

since no constructive efforts were made at assisting her recuperation, she has been forced to permit her neutral creditors to sell reichsmarks as rapidly as the market would absorb them. This is one of the decisive reasons for the continued decline of the value of the mark. With depreciated marks these neutrals have made such extensive purchases of movable and immovable property that a considerable percentage of stocks and bonds of German corporations, as well as of state and municipal securities, are now owned by non-Germans. The disastrous effect of such a development is obvious. If Germany is forced to make gold payments beyond either her capacity to pay in goods or the world market's capacity to absorb her products, the ultimate outcome would be the surrender of the country's assets to foreign capitalists, the corresponding dwindling of Germany's domestic power of taxation and the complete cessation of indemnity payments, as in Austria.

SHOULD GERMANY BE PERMITTED TO PAY?

It is clear, therefore, that only one basic method of payment is left to

Germany, that is, through credits accumulated in foreign markets as the result of profits on her export trade. This involves the development of German trade on an unprecedented scale and in markets where the currency is at a high premium. No one can estimate how much Germany could pay if the rest of the world opened their markets to her without let or hindrance and made no serious attempts at competition. But it is obvious that the world will not give Germany a free field and that the United States, least of all, would be willing to do so. Is it not an open question, therefore, whether, from the point of view of American commerce and the revival of American business, Germany ought be permitted to fulfill her reparations commitments?

The statistics in reference to the destination of Germany's exports and the source of her imports is illuminating on this point.

As Mr. Cravath, who cites these figures in his article in *The Herald*, points out:

From this table it appears that 34 per cent of Germany's imports were from the British Empire and the United States and that 25 per cent of her exports were to

GERMAN EXPORTS

To the United States.....	\$178,000,000
To the British Empire.....	456,000,000
To France.....	197,000,000
To Italy.....	98,000,000
To Russia.....	220,000,000
To the rest of the world.....	1,371,000,000
TOTAL.....	\$2,520,000,000

GERMAN IMPORTS

From the United States.....	\$427,000,000
From the British Empire.....	491,000,000
From France.....	146,000,000
From Italy.....	79,000,000
From Russia.....	356,000,000
From the rest of the world.....	1,192,000,000
TOTAL.....	\$2,691,000,000

those countries. This very practical question may soon be presented: Will the United States, which does not share in the reparation payments, and Great Britain, which receives only 22 per cent of them, be willing to encourage Germany in the policy of reducing her imports from those countries to the minimum and forcing her exports to those countries and to the competitive markets of the world to the maximum?

In the present state of disorganization in Russia and southeastern Europe it would follow that an even larger proportion of German exports than before the war must come to Great Britain and to the United States. In view of the new Administration's announced determination to prevent such "dumping," it would be absurd to expect Germany to be able to accumulate credits in the United States sufficient to pay during a period of years even the minimum annual reparation payment.

THE POSSIBLE WAYS OUT OF THE DILEMMA

Germany, in view of her promise to fulfill to the letter the reparation agreement, has a primary duty to make every effort to meet the demands required. The United States, as a co-victor with the Allies in the war, has a right equal to that of the Allies to interest herself in this question. If, as seems more than probable, at the end of a very few years, events prove that the obligations assessed against Germany are beyond her capacity to pay, one of two policies will be followed: Either the military sanctions provided for in the reparations ultimatum will be enforced and the virtual break-up of

Germany begun; or a general revision of the reparations settlement will be made—a revision not primarily in the interest of Germany, but in the interest of the reestablishment of normal trade conditions throughout the world. To put the question in this way gives a decisive answer as to what the attitude of the United States should be.

The effect of the reestablishment of Germany as a prosperous going concern upon our own trade and commerce, was succinctly summarized recently by Mr. Bernard M. Baruch, a member of the American Reparations Commission at Paris, as follows:

If Central Europe could be set to functioning, its organizing ability and genius for distribution would stimulate an increase in all of our activities. The railroad problem would be solved, because of the enormous increase in the volume of business offered. Our agricultural problem would be solved, because of the increased markets for all of the things we grow. Unemployment would cease, and it would be possible, because of the greater volume of business, to decrease the ratio of taxes.

The revival of American business cannot be disassociated from the revival of business in Central Europe. Considerations of self-interest and those of disinterested world statesmanship point towards the use of American influence, financial and political, in behalf of such an interpretation of the reparations settlement or, if later it proves necessary, such a revision of that settlement as will, by most speedily restoring the European market, expedite the return of normal international economic conditions everywhere.

Great Britain's Control of International Markets

By SRINIVAS R. WAGEL

WHEN Napoleon called the British a nation of shopkeepers he was not in a position to understand the importance of commerce in the polity of the world. But it is clear now why England, of all nations, should have grown to be the most powerful commercial nation in the history of the world within a century after Napoleon. The object of this inquiry is to show how England was able to control international markets.

ENGLAND BECOMES THE WORLD'S BANKER

From 1830 up to the World War, Great Britain was the supreme authority on international finance. No foreign investment of any kind, no loan of importance to any government in the world and no serious industrial development in any part of the world, has taken place without the concurrence, if not the coöperation of England. Up to very recently, railroad, industrial and mining developments, even in the United States, have been facilitated, if not made possible, by British capital.

It would be absurd to suppose that England set out to become the international banker, or that her own efforts, and not circumstances, were mainly responsible. In the past there have been financial centers other than London. Venice, Hamburg and Amsterdam were the gathering places of bankers and merchants and served in a much smaller way the purposes which London serves to the rest of the world. An international center is a place where those who have surplus bring the surplus for investment, and where those who want to borrow come to borrow. It is the gathering place of all people who have commodities to

exchange—a sort of a central market for at least the most important countries in the world. London got the lead shortly after the Dutch wars which made Holland an unimportant power in Europe, but it was after the Napoleonic wars that London became the financial center of the world. The prestige of having led the then allies against Napoleon and the fact that England was the least hurt by the war—while she had lent money to almost all her allies—was sufficient to start England on the road to the financial power which she attained later.

About the same time, adventurous Englishmen were establishing the trade and government of England in the remote corners of the world. This trade was extremely profitable and precious metals were flowing into England from countries like India and China. England had a fairly large accumulation of gold when she definitely turned to the gold standard in 1818. The adoption of the gold standard at that time was a master stroke of policy. As a consequence England alone had stable money. About the twenties and thirties of the last century no country in the world except England had money which had a fixed value. The United States was suffering from a plethora of continental money. France still had a considerable amount of assignats which were fluctuating in value from hour to hour. Russia, Prussia, Bavaria and practically every other country in Europe had little or no metallic circulation. As a matter of fact, the situation then was very closely parallel to the situation today when all the European nations have no metallic circulation and the United States occupies the position of England.

THE IMPORTANCE OF BRITAIN'S GEOGRAPHIC POSITION

But the adoption of the gold standard alone would not have helped Great Britain to achieve the financial power she did. Great Britain's geographic position was a great help to her. It enabled her to follow a policy of isolation and non-interference with the affairs of the Continent, except when events took place which seriously affected her supremacy. Up to the formation of the *Entente Cordiale*, by which King Edward VII brought Great Britain, France and Russia together, Great Britain had always kept aloof from the struggles and disturbances in Europe. While the various countries in Europe were busy with wars and revolutions, Great Britain was building up a commerce unequalled in the history of the world, up to the war, and was tightening her grip over the finances of practically the whole world. The conflicts between the various European countries—which alone counted, up to very late in the 19th century—and their jealousies of one another enabled Great Britain to be a kind of financial umpire to all those countries. When communications improved and new countries developed commerce, they followed the example of the continental countries of Europe and came to Great Britain.

ENGLAND'S INDUSTRIAL LEAD ON OTHER NATIONS

While the geographical position was important, Britain's efforts in the direction of manufactures and industry were of equal importance. A great many discoveries and inventions which revolutionized manufacture in Europe had their origin in Great Britain in the early decades of the 19th century; even when they had their origin elsewhere, Great Britain was the first to exploit

them. England was rapidly becoming an importer of raw produce and an exporter of finished goods; there were very large profits in manufactures. Other countries in Europe awoke to the situation long after Britain had almost an unassailable supremacy—such a lead that Great Britain became a free trade country while other nations felt it necessary to maintain a protectionist policy. The only country that might have competed with Great Britain at that time was the United States, but in spite of the large natural resources, developments have had to be slow in the United States because of the lack of capital and the political situation. Up to the outbreak of the World War, Great Britain had maintained her supremacy in manufactures, especially of exportable goods, in spite of the advent of serious rivals.

POLITICAL EXPANSION

The growth of manufactures in England, as well as her foreign trade, was considerably facilitated by the political expansion of England. Like the Spaniards of the 15th and 16th centuries, the British were adventurous and established their domain over distant lands and alien peoples. But, unlike the Spaniards, the British did all in their power to facilitate the exchange of commodities; any such growth of trade always benefited her and helped to strengthen her position as the premier trading nation of the world. This does not mean that Great Britain confined her trade to her colonies and possessions, but the existence of colonies and possessions made her position stronger than that of her rivals. Great Britain attracted merchants and bankers from every part of the world. For instance, a Chinese merchant, wanting to sell to the United States, found it easier to deal through London than to deal direct with New York or San Francisco.

WHY INTERNATIONAL TRADE KEPT CENTERING IN BRITAIN—SHIPPING AND FINANCE

The position of Great Britain as a common carrier of the world and her ability to finance trade gave her a control over the commerce of the world. Because Britain is an island, the British people ever since the dawn of history have been a seafaring nation. But only after the development of steamships did Great Britain become the common carrier of the world. Even up to the fifties of the last century the British position as a carrier was unimportant, the United States having had the largest tonnage. When shipping was revolutionized by the introduction of steamships and the building of boats of large tonnage, England took the lead and practically became the arbiter of the world's shipping. Before the war and for several decades previous, Great Britain had fifty to sixty per cent of the total tonnage of the world, while she controlled for all practical purposes nearly three-fourths of the world's shipping by means of combinations, rings and financial control. It is but natural that a carrier should be the most powerful factor in international commerce. Whatever the value and the quantity of goods one may have in a distant part of the world, they are useless for purposes of trade unless bottoms are secured for their carriage to the consuming or trading markets. Britain was able to make or mar trades which involved the carriage of goods by ships. It is not suggested that she used that power arbitrarily; it is only human however, that Great Britain should have used that power for the benefit of her nationals.

Equally important was Britain's ability to finance commerce. By virtue of her position—geographical, political and industrial—she was always able

to accumulate large funds which she was able to use as she liked. As pointed out earlier in this article, political and financial rivalries in Europe helped Great Britain. For instance, a surplus of funds in the French market would not go to Germany, even when the latter needed it; it first came to Great Britain, and was lent by that country to Germany. In this manner, almost every country got into the habit of sending the surplus funds to Great Britain—the world's money market. The bankers of the world knew that any surplus funds they had but could not use at home, could always find a ready market in London, while those who wanted money were also sure that they could borrow in London more easily than in any other financial center.

WORLD-WIDE TRADING KNOWLEDGE

The British could not manufacture goods for world markets, control the world's shipping and finance foreign trade, without a knowledge of conditions in distant parts of the world. Both by long experience and training Britain has a vast store of information relating to governments, institutions and even private individuals in almost every country in the world. The system of gathering information of such kind was started by Great Britain about a hundred years ago and is being maintained at a very high standard even today. Consequently, if a Peruvian company comes to Great Britain for a loan, the British banker generally has all the information he needs about that institution or, if not, he can cable and easily obtain such information. No other country, with the exception of Germany, has had such a vast amount of information, thoroughly reliable as a rule, and kept up to date. Trade information is easily obtainable for the British, mainly because their institu-

The Probable Trend of Interest Rates

By DAVID FRIDAY

Professor of Economics, University of Michigan

THE probable trend of interest rates in the United States for the next two years will depend upon the forces which operate on the capital market during that period. Obvious as this sentence may seem, it nevertheless implies a deal of wisdom about the causes which underlie the movements of interest rates. It is wisdom, too, which it took the world a number of centuries to acquire, and which is even yet far from being a part of our common stock of knowledge. For this implies that interest is a price, and that, like all prices, it is the product of the workings of a market.

INTEREST IS A PRICE WHICH MUST BE FORECAST BY A STUDY OF CAP- ITAL SUPPLY AND DEMAND

Since it is a market price, the forces which determine it must manifest themselves upon that market, either in the form of changes in supply or in the form of alterations in demand. Nothing can influence the rate of interest, any more than other prices, unless it operates to change either the supply or the demand. This implication of the first sentence may be considered as elemental, and may be accepted without argument or proof. So much has been established since the day when John Locke, at the close of the 17th century, wrote his *Considerations of the Consequences of the Lowering of Interest and Raising the Value of Money*.

In order to forecast the probable trend of interest rates, then, we must forecast the probable course of the demand for capital and the probable

supply of capital at different rates of interest.

THE SOURCE OF CAPITAL

The supply of capital during any given period of time consists of the excess of production over consumption. If, within the current year, the people of the United States produce fifty billion dollars' worth of goods and services and consume forty-two billion dollars of them in ordinary family and personal living expenses, the national supply of capital for the year will amount to eight billion dollars. This is the amount which will be available to meet the demands of those who desire to borrow capital. The supply of capital is created by people who do not consume the total amount of their product, but who put a portion of it at the disposal of the borrower. They wait until the future before they enjoy, through actual consumption, the fruit of their efforts.

THE NATURE OF CAPITAL AND CAPITAL DEMAND

The borrowers, who make the demand for capital, desire it for use in production or for consumption and enjoyment. They wish to buy and have for immediate use the goods which the suppliers of the capital have produced. These goods are of two sorts. They may consist of produced goods devoted to further production, like plant and machinery, raw materials and partly finished goods, and other working capital which is to be employed in the business activities in which the borrower is engaged. Or

they may consist of things which are not used in production, but which are employed for personal enjoyment, such as houses, automobiles and furniture. These durable goods used for consumption, together with those used in productive activities, constitute the national capital. Their distinguishing characteristic is that they are durable goods, and that their creation and use involve the expenditure of productive effort by people who are willing to wait before they reap the full fruition of their work. Money is simply one form of these durable goods, and, like other forms of capital wealth, is a useful instrument. Its particular function is to act as a medium of exchange in carrying on the trading activities incident to our modern industrial process.

AN ABUNDANT SUPPLY OF MONEY IN ITSELF DOES NOT MAKE LOW INTEREST RATES

It should be noted in passing, that an abundant supply of money does not in itself make interest lower. What the borrower really desires is not money, but the things which money will buy. The important thing that the lender does when he hands him his money is to promise that he will wait for repayment, postponing, in the meantime, his own demand for goods upon the market. This distinction between money and capital is one which must be firmly held in mind if utter confusion is to be avoided in explaining fluctuations in the interest rate.

It is true that while people desire goods ultimately, they borrow not goods, but money; and it would seem, therefore, that more money would mean a larger supply of the thing which is immediately borrowed. And so it is. Momentarily, such an increase does reduce the rate of interest, especially for bank loans. When in 1915 and 1916

Europe sent America almost one billion dollars in gold, this was added to the bank reserves of the country. The increased supply of money and the bank credit which it served to support, kept the bank rate low for a period of two years, despite the fact that the demand for loans increased greatly in this period. As will be seen later, the increase in money during this period was supplemented by an actual increase in saving. But without question the great increase in the supply of money and bank credit had an immediate effect upon the rate of interest.

But no one who has watched the increasing volume of money and credit and the rate of interest since 1917, should labor any longer under the delusion that an increase in the quantity of money brings about a lower rate of interest. The world has never had half the quantity of money and credit before that it has now; and it has not for half a decade seen such high interest rates. The reason why an increase in the quantity of money cannot long keep interest rates low is that it is always accompanied by an increase in the level of prices. Since the borrowers desire not money but goods, they must borrow a larger quantity of money funds than before in order to buy the same amount of capital goods. As soon, therefore, as the increase in money has effected an increase in price, the demand for money funds increases as rapidly as the supply, and interest rates are fully as high as before. All of this has been clear to economists since the days of David Hume. It is an increase in willingness to wait, an increase in savings, not an increase in money, which reduces the rate of interest for long-time loans. The supply of capital consists of savings, and savings consist of the excess of production over consumption.

FUNDAMENTAL PROPOSITIONS RESPECTING INTEREST RATES

In discussing the possible trend of interest rates we shall accept the following propositions as fundamental. Interest is the price paid for the use of capital. Capital is created by producing more than one consumes. The essence of the service which the lender performs to the borrower is in the waiting which he undergoes when he places his purchasing power at the disposal of another. From the standpoint of the nation as a whole, the essence of capital creation consists in the application of labor and material to the production of durable goods, like plant, machinery, railroads and public utilities, houses and automobiles, which give off their uses gradually over a period of time, and which therefore require waiting between the production of the goods and the enjoyment of the services which they render. Since interest is a price, it is determined by the forces of supply and demand, and cannot be greatly affected by legal enactment. Money is only one form of capital, and the supply of capital does not depend upon the supply of money, but upon the nation's saving. An increase in the quantity of money will not for any considerable length of time reduce the rate of interest.

DEMAND FACTORS HAVE HAD MAJOR EFFECT ON INTEREST RATES

By far the most important fluctuations in the fundamental factors which control interest rates occur on the side of demand. Whenever the demand for capital for the construction of plant, machinery, power plants, transportation facilities, automobiles, furniture and musical instruments, has been active, the rate of interest has risen in consequence. This was the situation during the ten years preceding the out-

break of the European war. During that time the rate of interest on high-grade bonds rose from $3\frac{1}{2}$ per cent to almost 5 per cent. This was for seasoned bonds which were already in the hands of permanent investors. The rate paid for new capital obtained from underwriters rose even more. There is no doubt that during this very period the supply of capital grew much more rapidly than it ever had before. The savings deposits of banks, the annual savings through building and loan associations and through life insurance premiums, the reinvestment of profits by corporations, the savings of the farmers, all show increases in the supply of capital which far exceeded anything which this country had seen previous to 1900.

But the demand for capital went on at a rate which outran even this increase in supply. During the decade and a half which ended in 1914 the United States became a great manufacturing nation. Cities in the middle west, like Flint, Michigan, and Akron, Ohio, had been "buckwheat towns" in 1899; in 1913, they were manufacturing centers of importance. Pleasant leisurely cities, like Detroit, grew in a short space of time into manufacturing cities of first rank. The whole public utility field multiplied its investment by about five during this period. What this signifies for the demand for capital will appear in the facts concerning such a corporation as the Bell telephone system. Between 1876 and 1900 this system had invested roughly \$300,000,000 in plant and equipment; during the next thirteen years they invested, in addition, twice that amount. The amount of capital invested in electric light and power companies, in street railways, in improvement to the roadway and equipment of steam railroads, far outran any rate of investment which had ever occurred before.

In addition to this large growth of American industries, both public and private, there was an increase in expenditure on better buildings, upon pavements and sidewalks, and above all things else, upon a very much improved and more expensive type of house. No explanation of the increase in the rate of interest which occurred just before the outbreak of the European war is possible without a recognition of the revolution which had occurred during this period in residential construction.

All of this increase in the demand for capital was occasioned in large measure by the swing-out of invention and technical improvements following the advent of electricity and the general application of science to the problems of industry. One invention of the period deserves particular mention because of its importance in the demand for capital. The automobile was developed and came into popular use during this period. This not only called for capital with which to erect factories, but every motor car was itself a source of demand for capital, because it was a durable good whose use involved waiting. By 1914 the people of the United States had accumulated a stock of almost two million automobiles. These had created a demand for capital which had been non-existent previous to this decade.

In the capital markets of the world a similar development in industry created a like increase in the demand for capital, and drove up interest rates. But the outside world had a further source of demand which had been absent during the period from 1871 to 1900: those years had been years of peace. War is always a source of greatly increased demand for capital. A war of first magnitude, such as that of 1914 to 1918, absorbs practically the entire excess of production over consumption

while it is going on. In the case of the European nations it went even farther than this and absorbed not only the new supply of capital created during the period of hostilities, but encroached upon the previously created capital as well.

The period from 1900 to 1914 was not free from war as had been the thirty years previous. Just at the close of that thirty years, in 1898, came the Spanish-American war. It was not of sufficient duration or extent to strain the national supply of capital. In 1900 came the Boer war, which cost England more than one billion dollars, to say nothing of the cost to the Boers. In 1904 occurred the Russo-Japanese war; this absorbed the entire capital of both parties to the conflict, and, in addition, called upon the European markets for more than one billion dollars' worth of capital. Only a few years elapsed before the Balkan wars broke out. The demand for capital for military purposes was active, therefore, throughout the decade which preceded the European war. All these forces working to increase the demand for capital had raised the rate of interest by almost one-half between 1904 and 1914.

THE CONTRAST IN CAPITAL DEMAND DURING THE PERIODS 1890-1900 AND 1900-1914

This period of rising rates of interest may be set in contrast with the period which had preceded it—a period in which interest rates fell even in the face of a fairly small supply of capital. In 1898 the President of the New York State Bankers' Association, an experienced practical banker of unusual sense and insight, said in his annual address:

The days of six per cent interest are gone, only to return at troubled intervals when normal conditions are disturbed. The choicest investments yield less than 3 per

cent. Some railroad bonds commanding $3\frac{1}{2}$ per cent command a premium. Rentals are proportionately reduced, and these conditions have come to stay. The growing wealth of this country is enormous, and as a permanent condition we must recognize four per cent as a good return for investment.

This statement shows the general situation which prevailed at the time. Interest rates were low, and wise, practical men thought they would not again rise. What this practical banker did not foresee was the great increase in industrial enterprise and activity, accompanied by largely increased profits and an enormous growth in the demand for capital with which men could seek those profits. Nor could he foresee that the world was to enter upon two decades of war and rumors of war, ending in the most destructive orgy which the world had yet witnessed.

During the nineties, the country had experienced a severe depression, which had diminished production, cut down profits, brought financial ruin to individuals and businesses, and discouraged enterprise generally. The profits of the national banks of the United States as a whole were $6\frac{1}{2}$ per cent during the ten years 1890-1899; in the decade 1900-1909, they were 9.88 per cent. These profits are simply a reflection of the profits which were being made in industry generally in the years after 1900. In such a situation the demand for capital was small, even at low rates of interest. After 1899, business had revived, production was thriving, profits were high, the spirit of business enterprise was exuberant, and men demanded large quantities of capital at high rates of interest. When profits are 10 per cent men will bid much higher and more actively than when they are $6\frac{1}{2}$ per cent. The difference between the rates of interest which prevailed in the two decades is to be

explained by this difference in the two situations, and by the manner in which that difference affected the demand for capital.

THE FUTURE TREND OF INTEREST RATES WILL BE AFFECTED BY THE DEGREE OF BUSINESS ACTIVITY

Will the situation for the future be more like that of the nineties, when the demand for capital was low and when interest rates fell in consequence, or will it resemble the decade which followed 1903? Will business men be optimistic? Will their profits be large, and will they be bidding constantly and anxiously for capital at a high rate? If we are entering a period when the business of the country will be characterized by conservatism, by a tendency to expend only such an amount of capital as is necessary to put existing plants in order, rather than to build new plants and promote new enterprises, and if investors are inclined to demand bonds and other safe investments rather than stocks and speculative securities, then the rate of interest is sure to fall.

BANK RATES SURE TO FALL

What then is the outlook for the immediate future? To the extent that the rate of interest means the bank rate for short-time loans, it has fallen even now and seems due to fall further in the near future. Here the demand is for *money*, and the banker's lending power is determined primarily by the state of banking reserves. One year ago the ratio of the reserves of the Federal Reserve Banks to the deposit and Federal Reserve note liabilities was 42.8 per cent. In such a situation the additional lending power of the member banks was rapidly approaching extinction. On June 29, 1921 the reserve ratio stood at 60.8. It bids fair to rise more in the immediate

future. In part, this increase in reserve ratio has been brought about by a decrease in loans of member banks followed by a decrease in deposits, which in turn led to reduced reserve requirements with the Federal Reserve Banks, and to a decrease of approximately twenty per cent in the volume of Federal Reserve notes outstanding since the high point of last December. In part, the improvement in the ratio is due to an increase of five hundred million dollars in the gold reserve of the Federal Reserve banks.

With a reserve ratio of more than 60 per cent, and with a fall in the demand for loans occasioned by the decline in business activity and falling prices, the interest on bank loans could not long remain at its high level. The call rate has fallen materially, for the reserves of the Federal Reserve Banks of New York and Boston are far above those of the other ten banks. It is improbable too, that the Federal Reserve Board will keep rediscount rates at their former level in view of the growing reserve ratio. Bank rates, then, will surely fall.

CAPITAL DEMAND FOR NEW ENTERPRISES WILL NOT BE HEAVY DURING THE NEXT TWO YEARS

In an analysis of the more fundamental question of rates on long-time loans, like mortgages and new bond issues of substantial concerns, municipal bonds, and the yield of stable bonds quoted on the exchanges, the situation is more complex. But if one keeps in mind the fundamental fact that the primary factor which makes a large demand for capital is the desire of the people to get capital for the construction of durable permanent wealth, for production and consumption, he will be able to forecast the situation in its main outlines at least. The demand for capital to be used in the promotion

of new business enterprises will be comparatively slight during the next two years.

Not a few people believe that the demand for capital for the promotion and extension of industrial plants will be the source of a large demand for all our available capital. They argue that the development of American enterprises has been suspended or checked since the outbreak of the war, and that the resumption of expansion is inevitable. It sounds rather queer to hear almost in the same breath that the expansion of industrial plants has been checked, and that productive capacity has far outrun domestic consumption. If we can produce twenty-five per cent more than the home consumer will purchase, and if industrial profits are lagging in consequence, there can be no great need for immediate expansion. There is much reason to believe that our expansion of industrial plants from July, 1915, to July, 1918, was at a quite unprecedented rate.

We must distinguish here, too, between the desire for capital and the effective demand for capital. The hungry boy outside the candy shop has an enormous desire for the shopkeeper's product, but his wants do not constitute effective demand. So there will be many promoters of business ventures who desire the capital of the investing public, who will not be able to present an argument attractive enough to convert their want into an effective demand. The investor simply will not listen to them at all, and that source of demand which has been so large for the past few years will be much reduced for the period immediately confronting us.

CAPITAL FOR BUILDING WILL BE AVAILABLE WHEN THE BUILDING REVIVAL COMES

The largest demand that is now in prospect for capital is that which arises

out of building, especially residential construction, and out of the need for public improvements, including improvements of our public utilities and railroad system. If the building boom were actively under way at this moment the acceleration of that demand would offset the decline in other directions in considerable measure. But thus far, the public has not had sufficient confidence in the future price of houses to make it willing to engage in construction on any large scale at present building costs. Before the building trade revives in sufficient degree to make a large draft upon the supply of capital, the volume of that supply will be quite sufficient to meet the demand at a rate materially lower than the one which now prevails.

ABSORPTION OF STATE AND MUNICIPAL BONDS NOT A SERIOUS MATTER

True, the demand for capital from states and municipalities for the prosecution of projects like road-building and for the payment of soldiers' bonuses is large. But it will probably not be in excess of one billion dollars per year and much of it will remain capital instead of being spent for consumption goods. The soldier who draws a bonus of \$300 and pays a loan at a bank, or makes a payment against the mortgage on his home, or deposits it in a bank as a savings account, or buys a safe bond already on the market, does not make any demand for new capital. In a nation which is saving, as we probably are even this year, between six and eight billion dollars per annum, the absorption of a billion dollars of state and municipal bonds is not a serious matter.

It is true there is a large volume of refunding of railroad, industrial, and government bonds which must be carried through within the next few years. But refunding does not absorb

new capital except to the extent that the bondholder spends his money when he is paid off. Most bondholders are not that sort of people.

THE FOREIGN DEMAND FOR CAPITAL WILL PROBABLY NOT REACH A BILLION A YEAR

There remains the foreign demand. We hear much these days of the tremendous waste of capital in Europe during the war, and the billions upon billions needed to repair that waste. It is true that Europe needs capital and wants capital for the rehabilitation of her industries. The United States has sent it to her in abundant measure during the last five years. Even since the signing of the Armistice we have been sending her more than two billion dollars per year. And she will desire much capital for the future. But this is again a case of the hungry boy outside the candy shop. Europe's wants for capital will not become effective demand to any such extent as many people believe. It is doubtful whether during the next five years we will send her as much as one billion dollars per year. She would gladly take more than this at good interest rates, but American investors will not be willing to accept the security which she can offer in return for any great amount of capital. The experience of our exporters of capital to Europe thus far is not one to make us optimistic on this point.

EXAGGERATION OF NEED OF EXPORTING CAPITAL

The necessity of exporting capital to keep foreign trade going and thus keep the wheels of American industry turning, seems to me to be much exaggerated. Another statement from the address of the President of the New York Bankers' Association in 1898 shows how easy it is to overestimate the

necessity for export of capital. He puts his conception of the relation of American industry to foreign trade in 1898 thus:

Our capacity to produce far exceeds our capacity to consume. The home market can no longer keep furnaces in blast or looms in action. That capital may earn its increment and labor be employed enterprise must contend in the markets of the world for the sale of our surplus product. . . . Our money and our credit must follow and aid our merchandise in seeking customers in those countries that consume more than they produce.

This statement was made after business had been stagnant in this country for four years. During the fifteen years which followed, American industry produced an unprecedented volume of goods, and got them all consumed without exporting capital to Europe. The average income per man, woman, and child in this country is only about \$500 per annum. Even a college professor's family can consume more than that!

THE OUTLOOK IS FOR REDUCED CAPITAL DEMAND AND SUPPLY

The net export of American capital, after allowing for gold movements, has been reduced 40 per cent since a year ago. The corporate security issues for the first five months of 1921, which require new capital rather than refunding, are likewise 40 per cent below those of 1920. *Taking the situation as a whole the outlook is for a demand, both for bank loans and for long-time investment capital, much below that which we have witnessed during the last five years.*

On the side of supply there will also be a reduction. The very fact that the supply of capital is determined by the excess of production over consumption makes this inevitable. When production decreases, savings

must fall unless consumption is cut down by a like amount. In periods of industrial depression the fall in productive output is always the most striking feature of the situation. Consumption falls somewhat, but to a smaller degree than production, so that there is some decline in savings, especially in the earlier stages of business depression when the decline in production is acute. As industry works out of this first stage and production revives in some degree, consumption still remains low. As a result of these forces the supply of capital falls less than does the demand. The result is a decline in the rate of interest.

Not only does the supply decline less than the demand, but in times of depression the available supply is shifted away from the highly risky and speculative market to the market for safe and seasoned securities where the rate is habitually lower. The interest rate to borrowers who have high-grade security to offer falls decidedly, therefore, in such times.

It is a fact worth noting in this connection, that the Liberty bonds sold upon the New York Stock Exchange declined in volume from one billion three hundred million dollars in the first five months of 1920 to seven hundred and thirty million in the corresponding months of 1921. Evidently people are already more anxious to hold the high-grade securities which they have, than to sell them and invest the proceeds in more speculative ventures. As soon as these securities begin to rise decidedly in the market, this tendency will be accelerated.

THE TREND OF INTEREST RATES WILL BE DOWNWARD

Upon the whole, it is most likely that the supply of capital for well-seasoned securities will equal the demand at a rate of interest decidedly lower than

that which now prevails. We will not return for a long time to the low interest rates of twenty years ago, but it seems entirely likely that we will work well down to the level of 1913. Liberty bonds, unless some unforeseen event arises, should be at par within three years, and all high-grade investment securities of long maturities should rise accordingly.

It is always difficult to forecast for any considerable period in the future the resultant of such complex forces as those which underlie the rate of interest. But the fundamental factors which operate upon the demand for capital and those which determine its supply after a period of business depression are such as will inevitably reduce the rate of interest.

Industrial Waste

By L. W. WALLACE, M.E.

Executive Secretary of the Federated American Engineering Societies

IN January, 1921, Herbert Hoover, as president of the Federated American Engineering Societies, named seventeen engineers to make a study of waste in industry. The federation of engineering societies was new; Mr. Hoover was its first president. At the organizing meeting held in Washington in November, 1920, Mr. Hoover proposed the study and was authorized to make the investigation.

There was peculiar fitness in the subject thus undertaken by the Federated American Engineering Societies, inasmuch as the object of the organization is to further public welfare whenever technical knowledge and engineering experience are involved, and to consider and act upon matters of common concern to the engineering and allied technical professions. The "assay of waste" undertaken by the Committee on Elimination of Waste in Industry was, as Mr. Hoover outlined it, to be a three months' investigation of a series of "samples" from which might be deduced general recommendations applicable to American industry as a whole.

The personnel of the committee consisted of eighteen carefully selected engineers. In selecting the members of

the committee, care was taken to secure men of broad experience, clear concepts, and unbiased attitude towards industrial problems. Representatives of managerial, consultant, educational and editorial activities were chosen, with an eye also to their widely distributed and varied industrial contacts.

When the "assay" began, the committee itself selected with great care the engineers who conducted the field investigations. The engineering firm employed to investigate a given industry was chosen because it had a long and a favorable record in that particular type of industry. Thus was brought to bear upon the plans, findings and recommendations, the accumulated and composite knowledge and experience of some fifty or more engineers. In many phases of the work other specialists, such as economists, statisticians, employment managers and industrial physicians had an important part in collecting the material and in drawing up the conclusions. An earnest effort was made to obtain the advice and the accumulated information of every known agency or individual that could throw any light upon the subject in the time allowed.

The essence of the plan adopted by the committee was to gather quickly such concrete information as might be used to stimulate action and to lay the foundation for other studies. It was believed that a limited, yet carefully studied volume of findings obtained through a rapid intensive study, would not impair the value of the facts disclosed or the validity of the recommendations based upon them. So within less than five months the committee completed an "assay" or analysis of waste in six typical branches of industry, and presented a summary of its findings to the Executive Board of the American Engineering Council, which is the governing body of the Federated American Engineering Societies. This took place on June 3, 1921, in St. Louis, at which time a condensed news abstract was given to the press. The complete report is now being printed in book form.

The original plan contemplated ten investigations in the field, including transportation and coal mining. Six have been completed. These include the building trades, men's ready-made clothing, boots and shoes, printing, metal trades and textile manufacturing. In addition to these specific field studies, seven general reports of a statistical character were prepared, each of them dealing with some aspect of industrial waste or its elimination on an extensive or nation-wide basis.

The industries selected for specific study are of great public importance, for their operation directly affects the daily life of everyone. It is believed that the sources of waste in these industries may safely be taken as generally characteristic of the waste in American industries as a whole. It is thought that the findings are not exceptional, and certainly the industries selected were chosen in the belief that they are fairly representative.

RESPONSIBILITY AND OPPORTUNITY THE POINT OF VIEW

In making the studies upon which the report was based and in preparing the report itself, there was no purpose or desire to place blame upon any individual, group or class. It is believed that the wastes revealed are the inevitable result of methods, practices and relationships of long standing in industry, and the committee has relatively little interest in pointing out the various responsibilities for these. In contrast, it desires to indicate the main opportunities for eliminating waste and whose opportunity or responsibility it may be to adopt proper measures for such elimination.

No attempt has been made to write an academic definition of waste or to speculate in regard to ultimate savings. For the purpose of the report, no attempt has been made to consider all economic wastes. Rather, in the committee's investigations, industrial waste has been thought of as that part of the material, time and human effort expended in production represented by the difference between average attainments on the one hand and the practical attainable performance on the other, as revealed by the detailed reports. In assaying waste in industry the committee has undertaken to evaluate this difference. Thus it has established no theoretical standard of performance or excellence, but has developed a method of measurement to determine the degree of effective use of those factors within which it was believed waste might be discovered. It has conceived that a given practice is not wasteful until a better has been revealed.

PLAN OF STUDY—QUESTIONNAIRE AND EVALUATION SHEET

The plan of study followed in each of these six branches of industry in-

vestigated was this: at the outset the members of the committee prepared an analysis of those factors and operations in industry in which waste might be expected to be discovered, provided a comparison was made between average practice and the best known practice. From this analysis, a trial questionnaire was prepared to secure information and quantitative data to permit of comparing the record of one plant with another in the same industry. The questionnaire is composed of 58 main topics and 260 leading questions. This indicates the multiplicity of avenues through which waste may occur.

This trial questionnaire was then used in making a study of one plant in each industry. The results of these trial studies were then brought together, compared, reviewed by the committee and, as a result, a revised questionnaire and an evaluation sheet were prepared, to be used in making the studies upon which the report is based. The revised questionnaire, as used with suggested modifications based on the experience accumulated in its use in the field studies, forms an important part of the report.

CALENDAR OF THE STUDY

The committee was named on January 12; its working program was approved on February 7; the first detailed report was in on April 1, and the last on May 13.

OUTSTANDING FEATURES OF THE REPORT

Some of the outstanding features developed are:

First: There is apparent a lack of a common terminology of management and personnel factors. This lack is the cause of much confusion. To one group the word management means one thing; to another an entirely different meaning is conveyed. The public is

confused by a lack of common knowledge of the meaning of industrial and management terms. Take "Collective Bargaining" and "Closed and Open Shop" for examples. We venture to say that if the people were to be asked for a definition or an interpretation, nothing approximating uniformity would be obtained in reply. There is a great need for constructive work in defining such terms. The establishment of a common terminology and a concrete definition of industrial words and phrases would lead to the elimination of much misunderstanding throughout industry.

Second: Another very significant need is the creation of standard units of measurements for the various factors of management. This applies particularly to the factors of individual and group performance. It is true that there are some factors of management for which it would be exceedingly difficult if not almost impossible to create and to apply units of measurement, yet there are many for which it can be done. It is also true that some progress has been made in the way of establishing standards for gauging individual and group performance. But in the main the practice is limited and based upon inadequate data and faulty premises. It has not been approached in as thorough and scientific a manner as its importance would justify. In a very large degree the whole system of wage payment is faulty because it is not based upon facts scientifically arrived at; and further, in a great degree definite standards of performance are not known.

Third: In the realm of industry there is no agency that can furnish complete, timely and authoritative information concerning any one or all of the important factors of production. Until basic, timely and authoritative data are known, no rational remedy can

be evolved for solving any industrial, economic, social or political problem. On so vital a thing as unemployment there is no central bureau of information; the facts have to be pieced together, so to speak. Last January and February some three to four million workers were out of employment, but no one knows just how many and no one knows what classes of trades were represented and in what proportion. The causes contributing to such conditions and the remedies to apply are still undefined. As such conditions arise from time to time, unemployment committees, boards and commissions are appointed which study the problem, collect data, make recommendations, apply some temporary measures of relief, and disappear. The emergency passes. The information collected, the experience gained and the effectiveness of measures used are not adequately recorded; consequently, when a similar emergency re-occurs it is again approached as a new and an unsolved problem. Information is needed not only to meet emergencies but to meet what appears to be a "normal" unemployment of a million of those classed as gainfully employed. What are the economic, industrial, political, social or mental conditions which cause one out of every forty of those that are supposed to be gainfully employed to be constantly out of employment? No one knows; no one can definitely state what really is the situation and what to do if the apparent facts are as represented.

Again, there is a large seasonal unemployment or intermittent employment, which adds many hundreds of thousands to the normal or constant unemployment. The clothing worker is idle approximately 31 per cent of the year; the shoe-maker, 30 per cent; the building trade worker, 37 per cent and others in like propor-

tion. This being the case, there is a need for a permanent clearing house for unemployment and intermittent employment. It should be the function of such a bureau to make an exhaustive analysis of the many factors connected with unemployment so that such information and accumulated experience may at all times be available. Further, it should study the causes, analyze the remedies applied, make recommendations as to how to alleviate in emergencies, and, finally, suggest what might be done to bring about a more permanent or stable employment cycle. The advantages to accrue are large in social, political, industrial and economic values. For after all, much of the unrest, suspicion and disturbance among workers results from the sub-conscious and conscious fear of unemployment. This is made apparent by the fact that the so-called seasonal industries, as clothing and building, have had the greatest amount of labor disturbance. In 1919, 32 per cent of all strikes in New York were in the clothing and building industries.

In the matter of strikes and lockouts there is no central source of authoritative information. It is the belief of many that there should be central bureaus of information concerning many phases of industry, as the quantity of raw and finished materials, the cost of basic raw materials and the like. Until such bureaus are established, industry as a whole will continue to be wasteful, because without a knowledge of the facts, rational measures of correction cannot be evolved.

Fourth: There is a real need for some form of coöperation that will safeguard the interests of the public, yet permit of a free exchange of information between the various organizations of a given industry and between interdependent industries. Many plants of a given industry have developed and per-

fecting important and economical management policies and practises which are not known to the industry in general. If they were known in detail by the industry as such, better conditions would prevail. It is also true that there is a great deal of duplication in the expenditure of money for research and other purposes, because of the lack of an interchange of information. Of course, it is recognized that a certain amount of such duplication is inevitable for purely commercial reasons, yet there is here a large area of mutual interest.

At the present time there is very little coöperation, coördination and exchange of information between interdependent industries. The manufacturer of clothing uses the material produced by the textile manufacturer. Likewise, the users of paper take the product of the paper maker. Very naturally there is a close community of interest between the designer and the retailer of ready-made clothing. Yet these two important elements of the clothing industry have not until recently taken any steps towards coöperation and coördination with reference to styles.

Fifth: It appears, from the available data, that the amount of waste from the general run of strikes, through the loss of wages and curtailment of production, is less than commonly thought. This of course does not refer to the losses that occur through such strikes as are all inclusive, such as real or threatened strikes on the railroads or in the steel industry.

That the apparent losses are less than commonly thought is in part due to the fact that the general run of strikes occur in seasonal industries. Thus, the total production for a given season may be and is often realized by prolonging the period of activity. For instance, more coal was mined in 1910 than in 1911, although the former year

witnessed many protracted strikes involving large numbers of employees. In 1912, with 47 per cent of the entire labor force out on strike, and with an average loss per man of forty days, the output of coal per man, per day and per year, was more than 1911. There was also six days more employment than in 1911, a year which was relatively strikeless. The total production was also more.

In addition to the direct losses through wages and curtailed production there are, of course, indirect losses, but no means is available to determine the extent of such losses. The information obtainable is inadequate on any phase of the problem. There is no agency that has the responsibility and authority to collect the information requisite for a complete and authoritative analysis. There are complete statistics for the period from 1881 to 1905. But since 1906 the Department of Labor has had no authority to "require information relative to strikes from anyone."

Sixth: It is a fair statement that for the country as a whole there are no adequate functioning bodies for the adjustment of industrial disputes, and hence the checking of industrial waste that results therefrom. There are almost as many varieties of legal machinery for adjusting labor disputes as there are states. Seven states have laws for local arbitration, but no permanent agency to execute them. Two states legalize permanent district or county boards established by private parties. Nine states provide for arbitration or conciliation by the State Commissioner of Labor or some other state officials. In twenty-seven states there are laws creating a special State Board or Commission for the settlement of labor disputes. In Kansas, a Court of Industrial Relations has been established with very broad powers. Nine states

make provision for local boards as well as for bodies with state-wide powers.

A recent examination shows that all this machinery for the adjustment of industrial disputes is active in eleven states, that is, functions with more or less success; that it is inactive in five states, and dormant in nineteen. That there is a real need for some adequate agency to function in the realm of labor disputes is apparent.

Seventh: A lack of rational standardization of methods, practices, policies and designs is a prominent cause for industrial waste. A great advance and refinement can be made towards standardization without in any way limiting individual ingenuity or unnecessarily curtailing the reasonable desires of any person. The possibilities for standardization occur in almost every phase of industry.

Some of the outstanding facts regarding the losses resulting from a lack of standardization are made apparent by the following: The equivalent of 8,000,000 passengers are transported daily by the elevators of the city of New York. More passengers are thus handled than by all the street railway transportation methods used in that city. Notwithstanding its great importance, the architect, the engineer, the contractor, do not design or build the structure around the transportation medium, which is an important factor, but the transportation medium is placed wherever convenient; and it has often happened that the building has been well under way before the elevator was even thought of. Consequently, some of the structure had to be removed in order to make a place for it. The net result of all this lack of systematic planning or standardization has been that most elevators are built to fit the space that happens to be convenient. The economic loss through designing, constructing, installing and operating

elevators under such a system is very large.

A very prominent locomotive building company was able to build 163 standard designed locomotives in five weeks, while it was able to produce only 104 locomotives of industrial design in the same period. Losses in production due to lack of standardization arise in every industry. You desire to build a home, an office or a factory building. You ask for designs and bids; six, eight or ten contractors submit plans, specifications, and bills of material. The contract is let to the lowest bidder; but in his price is included not only the cost to him of making the plans and specifications for your job, but also a percentage to cover the cost of all other jobs on which he has placed a bid and has not secured the order, or else a percentage to cover the cost of the other seven or eight bidders, there sometimes being an agreement among the bidders that this be done. In certain cities there are some bidders who always bid high. They do not want the contract. They make their living by the commissions collected on their useless figures.

The examples cited serve to indicate that waste occurs because of change of style or standards, no planning, inadequate standards, faulty and uneconomic designs.

Eighth: The 42,000,000 men and women gainfully employed in the United States probably lose 350,000,000 days annually from illness disabilities, including non-industrial accidents. Tuberculosis is the most important disease among industrial workers. Pneumonia, influenza, typhoid fever, hook-worm and malaria are prominent causes of industrial waste through the temporary or permanent loss of earning powers of millions of workers. There are more than 6,000,000 workers with organic diseases resulting mostly

from infection. More than 25,000,000 workers have defective vision requiring correction.

These figures clearly indicate the great economic waste that comes about through subnormal standards of health and vigor.

Ninth: Industrial accidents contribute a large amount annually to industrial waste. In 1919 there occurred in industry about 23,000 fatal accidents and about 575,000 non-fatal accidents causing four weeks or more of disability; a total of 3,000,000 accidents causing at least one day's disability. The figures for 1918 were about thirteen per cent higher. In the building industry, enormous losses occur through accidents, the \$20,000,000 paid yearly to insurance companies for compensation being only a part of the total cost, even if we disregard all human and spiritual values. The best authorities say that the actual cost of insurance represents not more than twenty-five per cent of the total economic loss which brings the total cost to the industry due to accidents in the vicinity of \$120,000,000. Experience has shown that by the adoption of proper measures the waste due to accidents may be reduced from seventy-five to eighty per cent in from two to five years of earnest effort.

* * *

From the foregoing discussion, based upon a careful report it is shown that the industrial waste in the United States is enormous. That much of it can be eliminated is obvious, which conclusion is also supported by the evidence.

In every industry studied, outstanding plants were found wherein much of the waste occurring in other plants had been eliminated.

No individual or agency wholly escapes responsibility for waste. The owner, the management, the workers, the public have a definite responsibility and at the same time an opportunity. The degree of responsibility is not fixed nor is there a definite ratio of responsibility for each group. This will vary with different industries. It may not be the same for two plants in the same industry. The evaluation of responsibility for remedying the condition as derived by the Committee places more than fifty per cent upon management and less than twenty-five per cent upon labor. That is to say, if industrial waste is to be eliminated management can through its opportunity remove more than fifty per cent of it, whereas labor can through its opportunity remove less than twenty-five per cent.

If American industry is to flourish, if it is to pass successfully through this trying period, if it is to withstand the foreign competition that is sure to come in the immediate future and at the same time to pay such compensation to all connected with industry as not to lower standards of living and to retard a natural and desirable increase of those standards, those responsible for waste in industry will have to adopt methods and policies, which by practical demonstrations have proven to be efficacious.

Waste in the Manufacture of Men's and Boys' Ready-to-Wear Clothing¹

By THOMAS WARNER MITCHELL, Ph.D.

Management Engineer

THE men's and boys' ready-to-wear clothing industry is one of the important industries in the United States. While not comparable in magnitude with the railroad, iron and steel, building and certain other industries, in 1920 its 3,504 manufacturers, employing more than 173,000 workers, were distributed among 42 states and 439 localities. The industry's product, consisting of men's three-piece and two-piece suits, boys' suits, men's and boys' overcoats, rain coats, office coats, automobile dusters, sporting suits, fancy vests and the like, is equivalent to between fifty-eight and seventy millions of three-piece suits a year and represents a retail value of from a billion and a quarter to a billion and a half dollars.

HOW THE INDUSTRY IS NOW CONDUCTED

This industry has passed through a number of changes, both in the nationality of its merchant-manufactures and workers and in the form of its organization. These must be noted to understand the existing problems of waste.

Originally, it is said, the merchant-manufacturers were Spanish Jews and the artisans, French Jews whom the former despised. In the course of time proprietorship passed to the French Jews who despised their employes, the Italian Jews. In their turn the Italian-Jew proprietors despised the Ger-

man-Jew artisans, and now the German-Jew proprietors despise their Russian and Polish-Jew employes. Here and there a Russian Jew has obtained proprietorship, while into the body of workers has come a large element of non-Jewish Italians, Bohemians and Lithuanians.

The people who have had the responsibility of conducting the industry have been, for the most part, not manufacturers, but speculative merchants who buy cloth, have it cut into garment parts in their own cutting departments and send these parts to outside people to be made up into finished garments. Originally, these parts were distributed among the work people at their cramped, ill-ventilated lodging places, mostly in tenement houses, where they were saturated with cooking odors, slept on by the children and made up into garments. A slatternly old Jewish or Italian woman carrying a bundle of garments on her head is even yet a familiar sight in New York City. Much of the "finishing," buttonhole making and button sewing, is still done under the "sweatshop" system. Such work is paid for "by the piece."

This sweatshop system developed into the sub-contracting system. Some of the more enterprising of these home-workers turned their tenement apartments into "shops" by knocking out the partitions, installing a half dozen sewing machines along a bench on one side of the room, a row of seats for hand-workers along another bench on the other side, and tables with hand-pressing boards near the windows. They hired their less enterprising

¹ A part of the subject matter and all of the charts in this article are taken from a report submitted jointly by M. L. Cooke and the author to the American Engineering Council's Committee on "Elimination of Waste in Industry." (*Ed.*)

fellow-workers to assist them, paying them by the piece, and contracted with the merchant-manufacturers to make up garments for them at a stipulated price per garment. Low piece-rates were combined with long hours. The workers received possibly the least money per week of any industrial class in the United States.

In New York City, in more recent years, since the union has become a powerful factor, piece-work was abolished in these contracting shops. Eventually it gave place to the "week-work" system in which the worker is paid on the basis of time he works and not on the basis of what he accomplishes in that time. During the transition there was a period of so-called "week-work with production standards" in which each worker was each day assigned a "stint" or definite amount of work which he had to complete in order to earn his day's pay. These stints were set arbitrarily by the proprietor and were so great as to keep the people working until eight and nine o'clock at night. Finally, the workers rebelled and abolished the stints. Since that experience, the idea of either piece-work or production standards has been anathema to the clothing workers of that city.

Most garment making in Greater New York is done in these contracting shops. There were nearly two thousand of them in February, 1920, as against less than one hundred tailoring shops owned and operated directly by the so-called clothing manufacturers. Most of these have been set up in former four and five room tenement apartments in Manhattan and Brooklyn and are operated by from a dozen to forty or fifty workers. A large portion of these shops are exceedingly dingy and unsanitary. Garments mop up the dirt from the floor. In one case, at least, a visitor found the proprietor ill, asleep on

a pile of coats. If the wearers of ready-made or of high-priced Fifth Avenue made-to-measure garments could know what exposure their garments have had to dirt, perspiration and disease germs, they would fumigate them with formaldehyde before wearing them.

The so-called "clothing manufacturers" of New York like the sub-contracting system. It offers them freest play for competitive speculation. It enables them to compete in prices and at the same time safeguard themselves by skilfully playing contractors against contractors so as to save the expense of getting the garments made. It permits them to accommodate themselves with the minimum risk and inconvenience to the highly seasonal demand for their product, concentrate their year's manufacturing into two short periods of from ten to eighteen weeks each and shut down with minimum loss from idle investment and overhead expense. The only "factories" they have to shut down are their own cutting departments. They assume no responsibility for these contractors and their employes during the other sixteen to thirty-two weeks. This contracting system will not give way to direct manufacture in New York City until the workers give better service in the manufacturer's shops than they do in contractor's shops—the reverse of the present situation.

Sub-contracting is a feature of all large clothing markets. Even the Clothcraft Shop did not take over its vest making until late in 1919. However, in Baltimore, Chicago, Cleveland, Philadelphia and Rochester, steps have been taken toward the development of large manufacturing institutions that do all the work of making a garment and use sub-contractors only to supplement their own manufacturing facilities. There are now two or three who pride themselves on doing all their

own manufacturing. The industry is developing in the right direction.

The character of management and the operating ineffectiveness in this industry are all that one would infer from the foregoing description. One establishment in it, however, ranks so high in management as to give a wonderful example of what the others could be if their proprietors had the necessary vision, faith, will, and could rid themselves of the notion that "my business is different." This plant is far from typical and we shall refer to it again only incidentally. A large mass of ephemeral plants are as badly managed as conceivably possible. Most of the manufacturing institutions referred to above have attained mediocre systematic management, while three of them are trying to install scientific management.

It is merely stating a truism to say that the production can be carried on effectively only when each operation contains only necessary work and is performed with the best available appliances, under the most favorable operating conditions, by persons adapted to the work, skilled in and using the most effective known method.

Men's and boys' ready-to-wear clothing for the most part is not manufactured under these conditions. The work content of operations is not standardized. To cite an extreme case, the writer and his assistant found that forty-five per cent of all the work being done in the "finish pressing" operation in a certain coat shop was unnecessary. Out of fifteen pressers no two were doing identical work. Furthermore, each presser walked an average of 150 feet with each coat separately, fifty feet to deliver it to the examiner when he had finished it, fifty feet to the work-ahead pile for the next coat and fifty feet back to the pressing table. A recognized authority in the industry

who has gone through the process of standardizing coat and pants shop operations estimates that, on the average, twenty-five per cent of all the work traditionally done is unnecessary.

Substituting the most effective method for the variety of inferior methods offers probably the largest direct opportunity for augmenting the production per man-hour. In so simple an operation as creasing arm-hole seams (a part of "finish pressing") six different methods were found in use among eleven operators working side by side. The best of these methods turned out the work more than two and a half times as rapidly as the poorest. The average productivity of all was forty-three per cent under that of the best. The output and piecework earnings of a certain group of basting pullers was doubled by teaching them the method of the best basting puller in another shop. The authority referred to above states that such waste figures apply to the whole garment making process.

Appliances are not standardized. Machines of a variety of design are found used in the same operation in the same shop. High speed machines are not used in those operations to which they are adapted. Indeed, in the division of the whole process into operations, so much hand work is combined with machine work that the machines do not ordinarily run more than one minute out of six. On the other hand, one manufacturer keeps his machines going six minutes out of ten. Machine or work place tables are too short, too narrow, too high or too low to afford sufficient elbow room and comfort for unhampered operation. Out of scores of establishments visited during the writer's twenty months' contact with this industry only one manufacturer was found who had written standard specifications for these things, based on study.

Furthermore, machines are not maintained in proper operating condition. For instance, in one factory 1,100 operatives are served by two machinists who are kept on the jump from morning until night making emergency make-shift repairs out in the shop while the workers look on and others, idle, await their turns. They state that they do not have time to take a machine into their repair shop and give it a proper over-hauling. Nor does their repair shop contain a single planer, speed lathe or drill press. The sewing machines are in run down condition. These operatives on piece-work lose production and earning power through the frequent breakdowns, the low speeds of their machines and the interruptions caused by frequent thread breaks that come when the internal mechanism is out of proper adjustment. A test in this shop showed that the speed of machines on the same shafts and same operations ranged from 2,250 down to 1,750 stitches per minute, whereas, in another establishment, the machines went 4,000 stitches per minute. Discouragement and dissatisfaction of pieceworkers under such conditions lead to labor turnover.

The above conditions prevail in a certain manufacturing institution. The conditions in the non-institutional little ephemeral shops and contractors shops are left to the reader's imagination. Certain institutional manufacturers do maintain well equipped repair shops and an adequate stock of spare machines. Instead of waiting until machines break down to repair them, they divide all the machines into comparatively small groups, and put each group on a time schedule, so that at regular stated intervals each machine is replaced from the spare stock, taken into the repair shop and the internal mechanism inspected and restored to proper operating condition. This not only

largely forestalls and prevents actual breakdown, but maintains all machines in better operating condition.

THE IMPORTANCE OF STANDARDIZATION

Without standardization of appliances, conditions, quality and work content, and of work method no valid performance standard can be determined. The great mass of clothing factories are without any performance standards. Some, indeed, do use a stop watch in timing operations for the purpose of setting piece-rates. However, these rate-setters leave the same variable appliances, variable machine speeds, variable lengths of stitch, variable methods that they found—or rather, did *not* find. How can such piece-rates be just? Such “studies” cannot result in performance standards. The piece-rates based on such “timing” are set for the operations in name only, there being no supporting written description of the appliances, conditions, detail of work content and methods whereby to define the operations to which the piece-rates refer. In consequence, the pieceworkers successfully carry on a continuous process of reducing the work content of operations, skimping on quality, and yet maintaining the same piece-rates. The alleged performance standards of other manufacturers that are based on “average past performance” are, of course, equally invalid because they, too, do not refer to definite methods and standardized conditions.

The movement toward setting piece-rates on the basis of such “time studies” was accelerated recently by Impartial Chairman Leiserson's award which permits the Rochester manufacturers to place on piecework the fifty-five per cent of their operations that hitherto had been on week-work. In view of the necessity of getting quickly on-

to a basis that will preserve the operatives' weekly earning power and yet effect a substantial reduction in the unit cost of production, this practice may be condoned if it is distinctly and mutually understood that this is merely a transition step. Likewise, the remnant of the Clothing Manufacturers' Association of New York and the Amalgamated Clothing Workers of America have agreed, in their recent settlement, to the principle of "week-work with production standards" to be determined by negotiation and mutual agreement or by arbitration. The manufacturers individually have been negotiating such standards with their respective shop committees. These standards take the form of specifying the number of workers in each operation in the shop, the wage-rates for forty-four hours work and the number of garments to be delivered each forty-four hours by each section or by the shop as a whole. These agreements really guarantee the manufacturer a minimum rate of output and a wage cost not exceeding a certain maximum. If the output falls below the specified rate, wage-rates are to be scaled proportionately. However, if it rises above this rate wage-rates are not to be raised. This seems an unavoidable step under the circumstances. Moreover, it seems just that performance standards should be determined with the consent and active coöperation of the work people rather than by the arbitrary judgment and fiat of the employer. However, both sides should distinctly recognize that even standards based on mutual agreement cannot long be satisfactory unless they are also based on careful study and standardization of operation content, appliances, conditions and operating method, and, therefore, that the present is a transition period.

Properly determined and properly

administered performance standards are a very valuable device both for conducting human relations on a mutually satisfactory basis and for planning and administering production. Under the piecework system they are the basis of just piece-rates. Under the week-work system they are the basis of a just measurement of the individual worker's performance and of the adjustment of his wage-rate to his capacity. Only on the basis of properly determined performance standards can wage scales be determined and administered with mutual satisfaction to employers and employees. One concern has been operating under a system of "week-work with production standards" for several years.² The week-work rates refer to these standards. Indeed, for many operations there is a series of progressive standards to each of which a wage-rate corresponds. A record is kept of each worker's performance and compared with the standards. In this way each worker grades himself and determines his own wage-rate by his performance.

By constantly checking actual performance against the standards and promptly investigating the causes of failures to attain standard, the manufacturer can quickly detect and rectify unstandard conditions as they creep in. By encouraging operatives to complain when conditions are not standard, and by promptly and sincerely investigating such complaints, rather than disregarding and discouraging them, valuable coöperation can be obtained in maintaining standard conditions. Performance standards enable the work waiting at each operation to be expressed as *hours of work*. This is a valuable aid in planning the daily dis-

² These standards, while determined by mutual agreement, are not based on careful, detailed studies and standardization of processes, conditions, methods and the like.

tribution of workers so as to prevent both congestion of work at some operations and failure of the work supply at others. All sales orders can be expressed in terms of hours of work on the basis of which a balance of work-ahead record can be maintained. Production can be scheduled for months or a season in advance. Delivery promises can be made that can be kept and the sales management can be guided in pushing for more business or refusing orders, in pushing or neglecting this or that class of model. Production can be planned for an entire season. The writer found a certain manufacturer of women's suits planning in December the origination of two new models in order that his plant could continue producing after May first suits of the various model classes in the same proportions for which their shops had been organized. In the realm of expansion the manufacturer can so plan the size of his plant and operating force as to take care of a given assured volume of business by continuous operation. These, together with a scientific make-for-stock policy based on an intelligent use of business statistics, make it possible to eliminate the seasonal wave feature of manufacturing—of which more will be said farther on.

PLANNING AND ADMINISTERING FACTORY WORK

The great majority of clothing establishments lack even the mechanism that is necessary for planning and administering work effectively. Some planning is done by shop executives or workers as an incident to other work. The analysis of sales orders, the classification and assemblage of the items into cutting orders and the delivery of piece-goods to the cutting floor must be planned by the management. However, the division of the cutting order into lays, the selection of the

specific bolts of piece-goods for the specific lays³ and the sequence in which they shall go into the lay, is usually planned by the workman on the cutting floor. Recently, a certain large house transferred all of this work to a planning department. Since then each order that was sent into the cutting department has been for a single lay. The piece-goods to be used are chosen by reference to the record of their widths and lengths; the length of the lay is specified, also the sequence in which the various pieces are to be put into the lay. The data necessary for this planning consist of an up-to-the-minute piece-goods record, not only by design but by the individual bolt, showing shrunk width and unused length and the measurements made on a set of standard lays made on paper before the manufacturing season opened—three widths for each model and practical combination of sizes. When the lay is built, instead of having a workman lay in and mark the patterns on the top layer of cloth as was the former practice, a carbon copy of the original standard or master lay is pinned to the top layer. Finally, this concern uses past experience and a tabulation of the items of sales orders received during the first ten days of the sales season to anticipate the distribution of its total sales of the season among the various models. This planning, this labor saving device, and the manufacturing to fill anticipated rather than actual sales items, have together increased the output per man hour of this concern's cutting department sixty per cent. At the same time they have saved a considerable amount of cloth.

In most tailoring shops there are no dispatching stations for recording the progress of work and giving out work assignments. There are no work tickets and, consequently, no route sheets of

³ Piles for cutting into garment parts.

progress records for the various manufacturing lots. No record is kept of production of the individual worker or the operation or of the balance of work ahead at each operation or of the plant as a whole. Lots of garments introduced at the beginning of the process just drift through without anybody's knowing where they are. In compiling the finished output of a certain shop the writer found it to be the rule that the last garments of any specific manufacturing lot to reach the finished state were more than a week behind the first garment of the lot. Production is measured only in shipments of completed garments to the finished stock room. Operatives either hunt up their own work, or the foreman and his assistants, combining the function of shop porter with that of hiring, instructing, disciplining, wage-adjusting and a multitude of other duties, watch the supply of each worker in their jurisdictions and find and carry work to him. Congestion of work at some points and idleness at others are the usual conditions.

Most of the "institutional" plants have work tickets with which to record individual piece-work performance or individual week-work performance. The former, however, usually consist of piece-work coupons, lot or individual garment, which are retained by the operative and turned in by him to the payroll department once or twice a week. They have no value for other than this one purpose. In these plants there is usually a record of the garments, by lots, that pass certain six, ten or fourteen points in the factory. However, in these rarely is there a complete record of the progress of each lot and of the production and balance of work ahead of each operation. The writer spent much time in the shops of one of these institutions. There was no visit to any shop during which he did not

observe a number of operatives, even whole sections of them out of work. The only wigan sewer spent a third of an afternoon sitting with folded hands; all of a small section sat on their work benches in idleness; three out of twelve operatives were idle during the whole of some ten or fifteen minutes the writer was observing a certain pants operation; thirty or more vest buttonhole makers delivered their finishing work (one vest at a time assigned to each worker), wrote their names in a column on a large sheet of paper to establish the order of service, and sat idle until more vests arrived from the previous operation and their numbers were called. Forty-five collar makers did a similar thing for hours and then were sent home at two o'clock in the afternoon. These are a few samples of what was usual all over the shops—even at the peak of the manufacturing season when the production manager was keeping every foreman on a hot griddle because he was not getting out garments rapidly enough.

Besides performance standards, two indispensable requisites of economical shop operation are first, an up-to-the-minute record of the production in each operation and of the amount of work waiting to be done ("balance of work ahead"), and second, versatility of the workers. Without such a record, congestion of work is bound to occur at some points and running out of work is bound to occur at other points before shop executives can become aware of their immanence. With such records the trend of affairs at each point can be known hours or days ahead and adequate measures taken to maintain the even flow of work. These measures consist for the most part of planned transfers of workers. Such transfers are unavoidable if congestion and idleness are to be avoided. Only in a factory so large that it could supply the

whole world, with a perfect attendance, with absolutely no labor turnover, with the various models and sizes of product fed in invariable proportions, and with perfect maintenance of equipment, could the work force in the various operations be so proportioned as to dispense with the frequent reapportionments effected by transfers.

Two manufacturers, in particular, have done very well in these respects. One operates under scientific management; the other is endeavoring to install it. Both have divided their shops into sections of convenient size, each served and directed by an order of work station. Both have work tickets to record individual production, one piece-work, the other week-work with production standards. Both have a suitable set of route cards for each manufacturing lot on which the one keeps an up-to-the-minute, the other, an up-to-the-hour record of the progress made on that lot. Likewise one has an up-to-the-minute, the other an up-to-the-hour, record of the production in each operation and of the balance of work ahead of it. The one, through a policy of grading and rating the various operations according to skill involved and of developing the all-around skill of its workers, has developed a very versatile and mobile work force and re-distributes them each day so as to "balance the shop." He then avoids congestion at any point by setting a production quota for the day that will occupy the "weakest link" the full work day—something that can be done only by having both properly determined performance standards and a recorded knowledge of the capacities of each operative. Production in each operation is stopped as soon as the day's quota has been completed in it. The other maintains a separate "flying squadron" of versatile workers and plans the transfer of these each day on

the basis of the balance of work ahead and production record.

All of this implies centralized planning to originate and plan for manufacturing orders, prepare the administrative stationery, collect and interpret reports, plan transfer and the like. Once such a brain is established and consciousness is awakened, it will not be content with the subject matter that is referred to it but will direct its attention forward to the whole work of the season and of future seasons. Manufacturing planning, sales planning, financial planning, both for the immediate and the more remote future, will become interlinked.

INTERMITTENT EMPLOYMENT—THE SEASONAL WAVE FEATURE

The most important waste, from the viewpoint of the workers, remains for discussion. It is the seasonal wave feature of the industry that results in a large degree of unemployment during two periods each year. Taking the fluctuations in the employment of cutters—fluctuations in hours worked below the full week as well as fluctuations in the numbers of cutters on the payrolls—as an index to the fluctuations in the employment of all clothing workers, the payroll data of eight representative establishments in various parts of the United States showed that the average employment, exclusive of overtime, is thirty-one per cent under that at the peaks of the busy season.⁴ With one concern the average is forty-two per cent less than the peak. Charts 8, 9 and 10, pages 60-61, portray the fluctuations in the number of cutters in the employ of three of these "manufacturing institutions." Representation of the half-time or less worked during the slack seasons would make the valleys much deeper.

⁴ These data cover the period from January 1, 1917 to April 17, 1920, but do not cover the present industrial depression.

Unemployment at the depth of these slack seasons reaches as high as eighty and ninety per cent in some of these institutions, while many small plants shut down altogether. This seasonal wave manufacture means that on the average thirty-one per cent of clothing plant capacity is wasted. In other words, clothing plants are over-equipped forty-five per cent as compared with what would be necessary if the same volume of manufacture were spread uniformly over the year.

How nearly thirty-one per cent of the possible productive time of the workers is thus wasted cannot be stated because there are no means of ascertaining what these displaced workers do. No doubt many of them migrate to the tailor-to-the-trade houses, whose seasons partly dovetail with those of the ready-to-wear houses, or to other fill-in employment; but with the best they can do there must be great loss of earning power. Were these workers only inanimate tools the waste might stop with that. However, they are living beings with family ties, anxieties, capacity to suffer and minds with which to interpret, form theories and adopt courses of action.

One consequence of their seasonally recurring anxieties and sufferings is a vast fund of antagonism toward their employers and toward employers as a class which may be summed up under the designation, "industrial ill-will." Another is the concrete, practical, though fallacious, industrial philosophy called the "lump-of-labor" or "make-work" theory. This is the belief that "there is so much work to be done" and that the sensible course for workers is to stretch it out and make it last throughout the year.

Workers' antagonism and this philosophy express themselves in various ways. The introduction of labor saving machinery is opposed. Discipline

is largely taken out of the hands of employers and centered in the union machinery. There are local movements to substitute week-work for piece-work and to abolish work-tickets in the week-work market. Likewise, all mechanism for recording individual performance is opposed. Suspicion of the manufacturer's motives, in connection with any mechanism he may try to install, hampers and even prevents the installation of the mechanism necessary for the most effective planning and administration of factory work.

This seasonal phase of the industry thus not only constitutes one of the greatest wastes but also constitutes the one big problem that confronts the worker's union. Workers are demanding a satisfactory solution of this problem. Furthermore, until they see satisfactory progress being made toward its solution, their "industrial ill-will" will not only grow, but will retard and, in some places, block the introduction of those measures that are necessary for eliminating other wastes. The solution, however, is not to be found in the measure that the workers have applied or advocate, but in seeking and removing the cause.

The chief cause of seasonal unemployment is the almost universally prevalent sell-then-make basis of manufacture and this in turn is largely dictated by the excessive variety in the styles of product. The trend in recent years, due to the desire of the manufacturers to stimulate additional demand and their fear of losing ground to competitors, has been toward an increasing multiplicity of styles of young men's suits and of varieties of cloth. An illustration followed through to its consequences will be enlightening. One concern offered its customers, in the heavy weight season of 1920, thirty-one models of over-coats, twenty-nine models of sack suits, each in three styles of

lining construction, three combinations of lining materials and nearly 1,100 varieties of cloth. Thus, each customer had a free choice among 278,000 possible combinations. While this case is extreme, it is only the extreme of a widespread trend. (See Diagram 1.) This concern's total sales were less than that figure so that had its customers exercised among them all possible choices, every suit made would have had to be cut and processed separately. As a matter of fact, the average size of its manufacturing lots was twelve garments. There were very few lots of more than twenty and far more lots of three garments than of any other number.

Thus, the first consequence of this great variety was very small scale production. Although this concern manufactured 400,000 suits a year, they were put through in these minute lots.

This kind of production has two important consequences. First, the direct labor per garment is unnecessarily great because of the very large proportion of those items of work that are done but once for the assignment. It takes as long to get work, open bundles, arrange piles of parts, read making instructions, change or set gauges, change thread, tie up bundles, deliver finished work and the like for a lot of three or twelve as for a lot of one hundred. Further, there is the production loss that comes from frequent interruptions of the rhythm of the operatives' work. In this case the work assignments were so short that one worker out of every five was thus interrupted at least once in every six minutes, and two out of every three were interrupted from one to six or seven times every half hour.

DIAGRAM 1

CHARTS SHOWING DISTRIBUTION OF SALES AMONG MODELS

Excessive variety of product keeps production on a small lot basis. This variety coupled with a policy of manufacturing only to fill orders received also causes production to come in marked seasonal waves alternating with slack seasons of extensive unemployment.

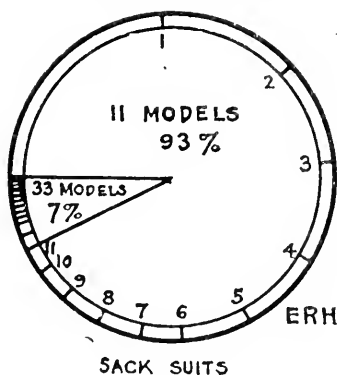


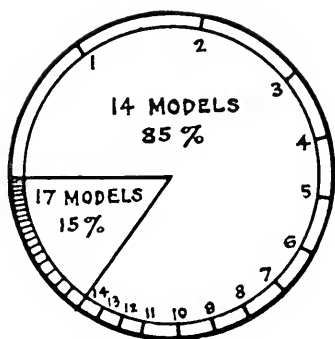
CHART 1

One manufacturer offered his customers choices from 29 stock models of men's and young men's sack suits and also made up suits in 14 special models designed by certain customers. Each of these was offered in three styles of lining construction, three combinations of lining material and in over 1,000 cloth styles.

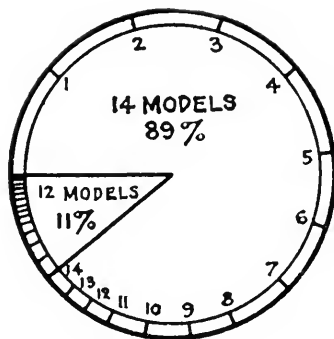
The effect of this great variety upon the size of manufacturing lots is shown in chart 5. The marked wave character of this firm's employment is pictured in chart 8.

That the public does not really demand so great variety is evidenced by the fact that 11 of these models account for 93% of the total sales.

The sales of 25 of the remaining models are so small that they cannot really be represented in this chart.



SACK SUITS

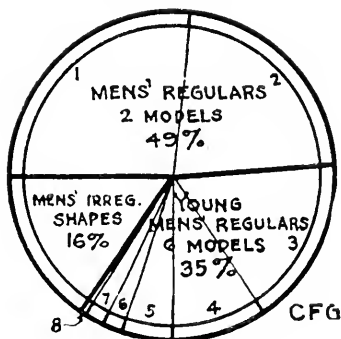


OVERCOATS

SAF

CHART 2

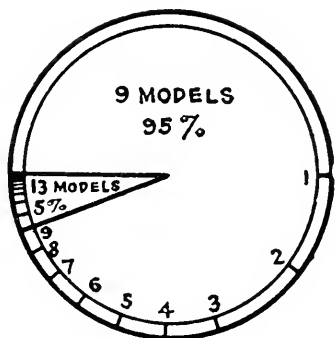
This manufacturer offers 31 models of sack suits and 26 of overcoats. But the great bulk of demand concentrates on a comparatively few models.



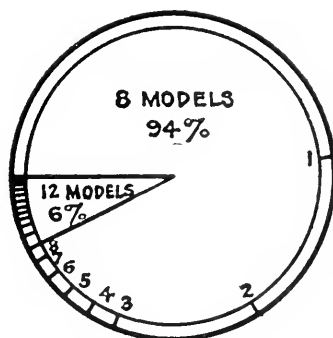
SACK SUITS

CHART 3

This manufacturer offers only two men's and six young men's suit models, each in less than 300 cloth styles. Two-thirds of his sales concentrate on three models. This enables him safely to make up suits of these models for stock between seasons and thus operate his plant continuously at full capacity; also to cut in lots averaging 128 suits each.



SACK SUITS



OVERCOATS

PMJ

CHART 4

This manufacturer offered 22 models of sack suits and 20 models of overcoats, each of which was offered in over 1,000 styles of cloth. One model in each accounts for nearly or quite half of all his business. He has a wonderful opportunity to eliminate slack seasons by manufacturing these models for stock.

Second, such small-sized lots make effective shop planning and administration so expensive that manufacturers dispense with it. There are from 80 to 150 operations involved in making a sack coat, depending on how the whole process is divided up. To provide individual work tickets, order of work tickets, a set of route cards, adequate inspection and move orders for lots of one, two, three, four, five, or even twelve garments, means prohibitive expense. Most of this procedure involves no more expense for a lot of one hundred or five hundred than for a lot of three. Furthermore, *less* time of operators and clerks will be consumed in changing assignments of work in the case of large lots, for with small lots and frequent changes there is bound to be a large amount of awaiting turns. With large lots the expense of such mechanism is negligible, counterbalanced many times over by the benefits. With small lots the expense looms so large relatively that the manufacturer has not the courage to incur it. Hence excessive variety of product bars effective factory management.

The second consequence of this great variety is that it practically forces the manufacturer to the sell-then-make basis of manufacture and through it puts manufacturing at the mercy of the seasonal demand for the product. This is a negative, easy-going policy in any event. However, with this great variety of style offered, with the consequent small sales of many of the models—in one case twenty-five out of forty-three models accounted for from less than three-tenths of one per cent down to two-thousandths of one per cent each—without the tabulation and statistical study of sales data that is necessary for any dependable forecast of the probable relative popularity of the various styles, sell-then-make becomes the only safe manufacturing basis.

How intense this seasonality is, we have already seen. However, it is caused not so much by the ultimate purchasers' bunching their demands in the early autumn and just before Easter as by the retail dealer. He does not want to receive his merchandise before the beginning of his sales season. Partly through established custom and partly through fear of being a bad guesser on the trend of fashion—a fear to which the excessive variety itself makes a large contribution—he does not want to order too long in advance. For the same reason the manufacturer waits until the last possible moment to make final decision concerning the models to be shown. Consequently, receipt of sales orders precedes the opening of the new retail season by too brief a period, and manufacturing must be bunched.

A study of sales statistics indicates that neither the consuming public nor the dealers really demand such excessive variety of styles. In one case eleven out of thirty-one sack suit models accounted for seventy-eight and one-fourth per cent of the total sales. In another, nine out of twenty-two models accounted for ninety-four per cent, and one model alone accounted for fifty per cent. In a third, eleven out of forty-three models accounted for ninety-four per cent of the sales, while the sales of twenty-five out of the remaining thirty-two models ranged from less than three-tenths of one per cent down to two-one thousandths of one per cent each. (See Diagram 1.) Most of the multiplicity seems to represent the manufacturer's effort to entice a little additional business—business that must be unprofitable on such a minute scale.

As for the sell-then-make manufacturing basis, all large clothing houses have always done a considerable amount of making for stock during slack seasons.

They have simply reduced their production to fifty per cent or twenty per cent of normal. An intelligent study of their sales would enable them safely to make for stock up to their full normal output throughout the year. The great bulk of sales, seventy-one per

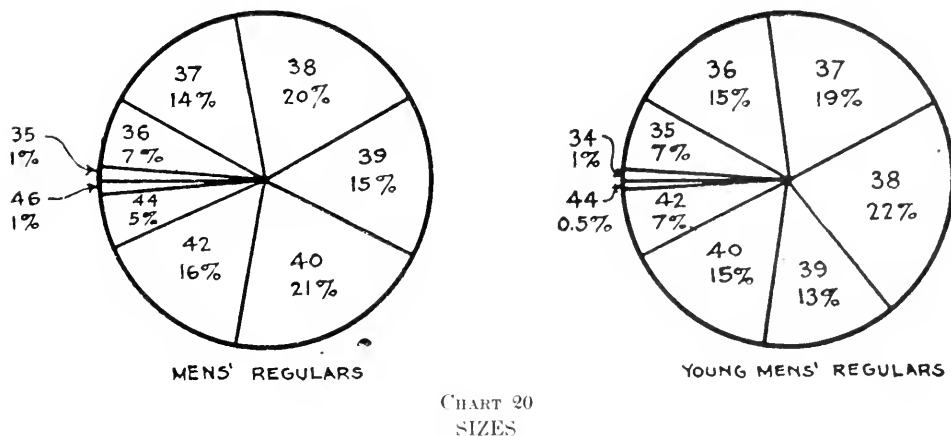
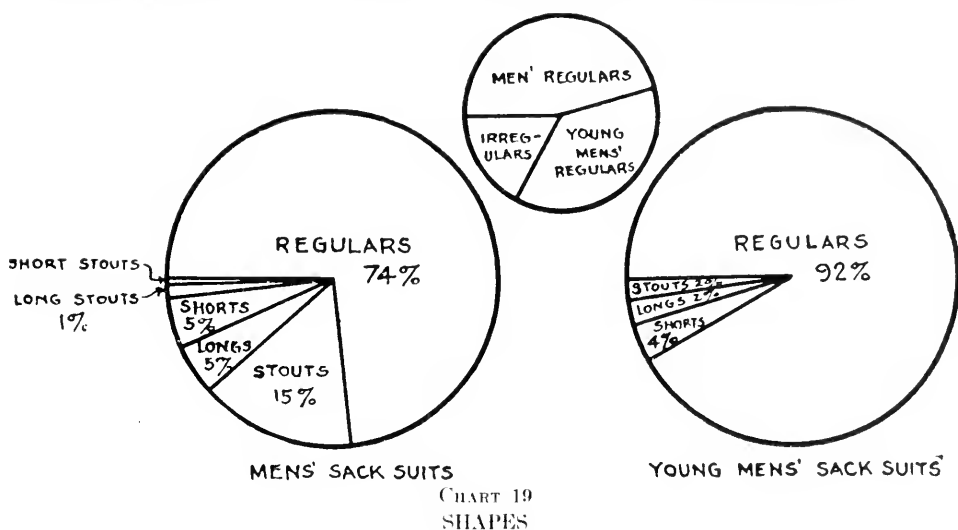
cent of men's sack suits and eighty-nine per cent of young men's, concentrate on the so-called "regular" forms and largely on five sizes. (See Diagram 7, Charts 19 and 20.) In every manufacturer's list there are two or three models that are persistently

DIAGRAM 7

CHARTS SHOWING DISTRIBUTION OF SALES AMONG DIFFERENT SHAPES AND SIZES

The great bulk—86½%—of the demand for men's and young men's ready-to-wear sack suits is for the "regular" or standard shape or form. Men's "regulars" concentrate largely on 5 sizes, namely; 37, 38, 39, 40 and 42. Young men's regulars also concentrate on 5 sizes, namely; 36, 37, 38, 39 and 40.

Manufacture of regulars for stock in conservative styles in these sizes and in a range of tasty (not flashy) suitings is safe up to such limits as fully to bridge the traditional slack sales seasons.



much better sellers than the others season after season over a fairly long period. Likewise, there are a number of good (not freakish and flashy) cloth styles which the manufacturer can practically be sure of selling in considerable quantities. These are the materials with which to bridge the slack seasons by manufacturing for stock.

Several houses have found that the proportion in which their sales of the first two weeks of the sales season divide themselves among the various models are substantially the same as the proportions for the entire season. On this basis they *estimate* the distribution of their total sales, manufacture to fill *anticipated* sales orders during the first half of the manufacturing season and still have time in the latter half to correct any discrepancies between the anticipated and the actual sales. This enables them not only to maintain an even flow of work but to plan all cutting and manufacturing so as to secure economy of cloth and labor. This plan has been followed with great success by a certain large house that manufactures women's suits—and compared to the variety and rapidity of change in style in women's suits, changes in men's wear are not mentionable. What can be accomplished in the field of women's garments can also be accomplished in the field of men's garments and has been accomplished by at least two concerns.

What seems to be needed is a courageous, constructive sales policy, that (1) confines the business to from five to ten well chosen models, in 200 to 300 cloth styles, expressing all the variety that the consuming public can appreciate; (2) divides the country into sales territories with the assignment to each of a definite quota not only of all garments but of each model; (3) stands for a vigorous, positive salesmanship instead of the order-accepting kind,

backed up by effective national advertising to carry out the sales policy and sell the quotas.⁵

For instance, one concern offers but eight models of sack suits, each in less than 300 cloth styles. It is able to cut in lots averaging 128 garments and one cloth style each. Contrast this with average lots of twelve garments cited in a foregoing illustration. (See Diagram 2.) Two-thirds of its sales concentrate on three of these models (See Diagram 1, chart 3.) This concern manufactures these three models for stock during the slack seasons, operates at nearly full

⁵ The *Literary Digest* of June 18, 1921, seems to be amused by this suggestion of reducing the variety offered in men's wear as expressed in the report of the Committee on Elimination of Waste in Industry to the American Engineering Council. It says, "The Committee, therefore, would standardize clothing style along with automobile tires," and quotes other press comment, "Let the fashions be standardized and everybody will be just as happy, the committee evidently presumes," and "But, nevertheless, we are glad that no body of men succeeded in standardizing and perpetuating the styles of the middle years of the nineteenth century, and we are quite sure that those who come after us would object mightily were they forced to adopt some of the styles in vogue in this first quarter of the twentieth."

Those who assume that "standardization" in the sense of reducing the variety of the production means perpetuation of a few existing designs are very much mistaken. The Packard Motor Works make each year but two main designs of motor car, the six and the twin six, each with only four or five styles of body. Yet the 1921 models are not identical with those of 1920 and are superseded by slightly different models for 1922: an improvement is made in the carburetor, a line is changed slightly on the hood, and so on. So would the shifting of popular demand from one style of model to another offer clothing manufacturers opportunities to drop out an old, once popular model and substitute a new design. As for variety, we would ask the public press whether if 1,272 manufacturers of men's and young men's suits should each offer but seven models (no seven identical with any other seven, for each manufacturer has its own designer) each in 200 styles of cloth, in its opinion the resulting 1,780,800 varieties in combination of model and cloth would be insufficient for the American adult and adolescent male public!

DIAGRAM 2
CHARTS SHOWING NUMBERS OF GARMENTS IN CUTTING LOTS

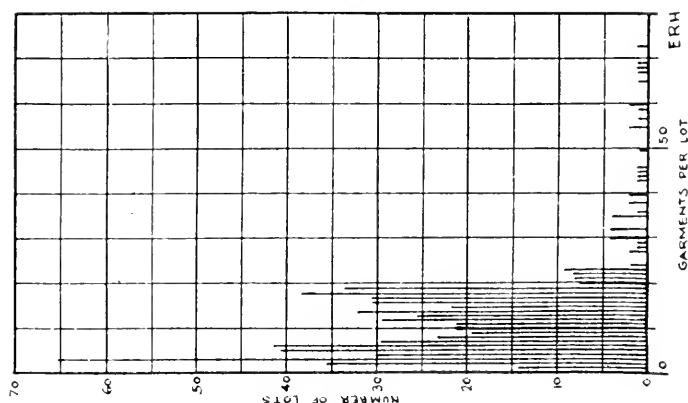


CHART 5

This manufacturer of men's and young men's sack suits offers a great variety in model and cloth style and ordinarily manufactures only to fill orders.

This policy causes production to take place in small lots as here shown. Rarely do manufacturing lots exceed 20 garments to the lot and an astonishing proportion of them are in lots of 7, 6, 5, 4, 3, and even 2 garments each. Observe that far more orders are of 3 garments each than of any other size.

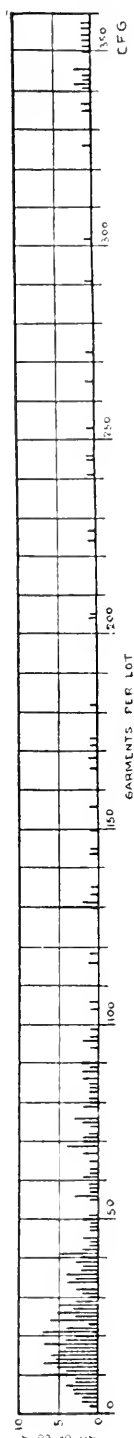


CHART 6

This manufacturer offers only 8 models of suits, each in less than 300 cloth styles. This enables him to cut in lots averaging 128 garments each. The large number of small sized lots shown on this diagram probably represent the clean up toward the end of the season.

DIAGRAM 4
CHARTS SHOWING MONTH TO MONTH FLUCTUATIONS IN TOTAL WORKING FORCES

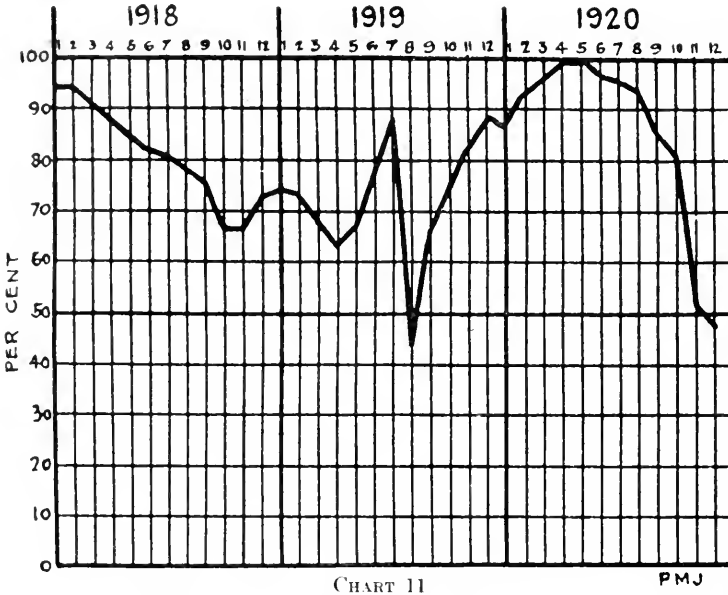


CHART 11

PMJ

This chart, which pictures the month to month fluctuations in the total working force of another clothing manufacturer, shows a slack season in October and November, 1918, another in March, April and May, 1919, and the oncoming industrial depression commencing after May, 1920.



CHART 12

JNA

This chart shows the month to month fluctuations in the total number of persons on the payroll of another manufacturer of men's ready to wear clothing. It does not show the typical seasonal fluctuations in employment, but rather those longer period fluctuations due to change of status of the industry from war work in 1918 to an uncertain peace-time production after the Armistice, followed by the period of abnormal demand for clothing in the latter half of 1919 and early 1920 and culminating in the industrial depression in the latter half of 1920.

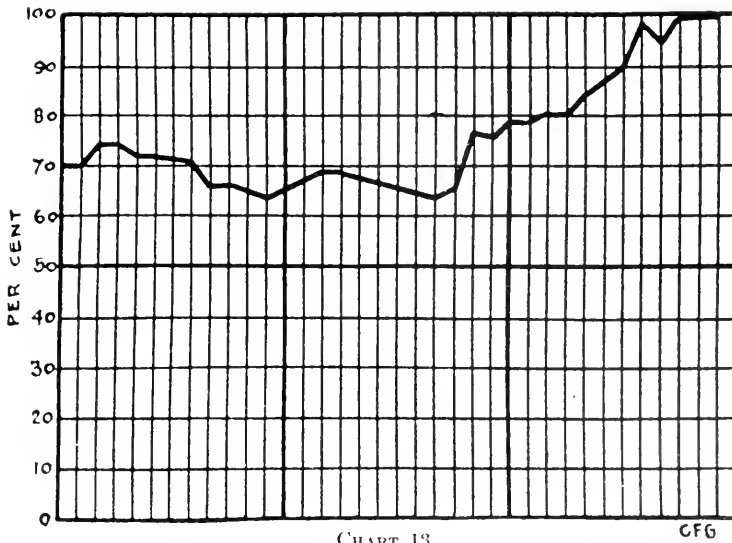


CHART 13

This chart shows what can be accomplished by a manufacturer who sincerely, resolutely and intelligently sets out to manufacture for stock and adopts an aggressive positive sales policy. The working force declined slightly in the latter half of 1918 and again in the latter part of 1919. But the average force is only 6% under the maximum. These declines were due to the competition of the war-working industries in 1918 and to the return of soldiers to claim their wives and sweethearts in 1919. In the latter half of 1920, when other clothing manufacturers were shutting down their factories because of industrial depression, this establishment, which is operated under scientific management, kept its force operating at nearly full capacity.

DIAGRAM 3

CHARTS SHOWING WEEK TO WEEK FLUCTUATIONS IN PERSONNEL IN CUTTING DEPARTMENTS

All garments must be "cut" before being "tailored." Hence these charts, which represent the week to week changes in the number of cutters in the employ of these clothing manufacturers, picture the pronounced seasonal character of this industry.

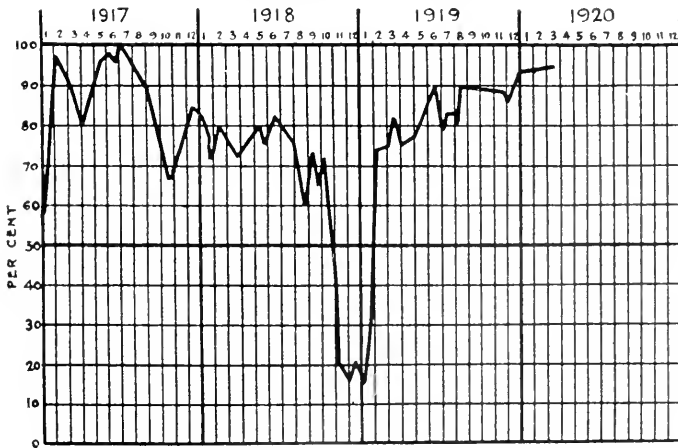


CHART 7

Composite chart showing fluctuations in twelve New York cutting departments.

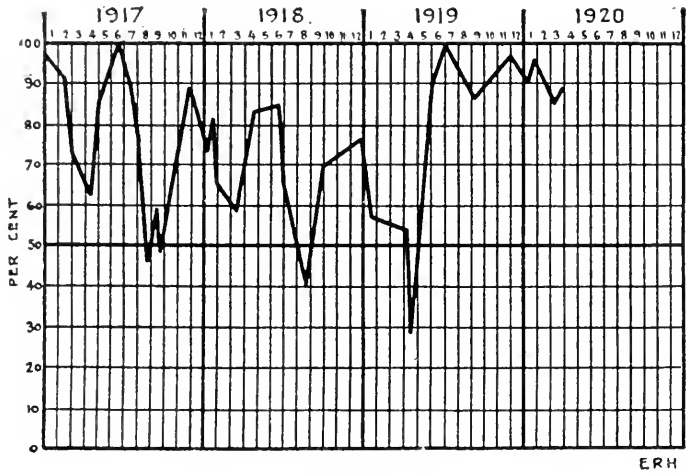


CHART 8
Fluctuations in one cutting department.

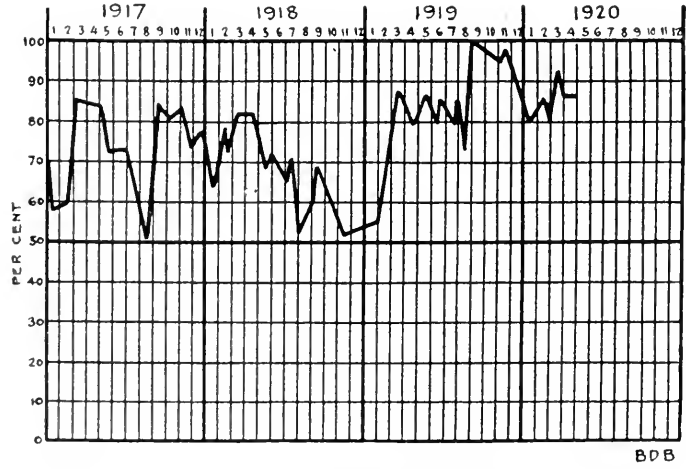


CHART 9
Fluctuations in another cutting department.

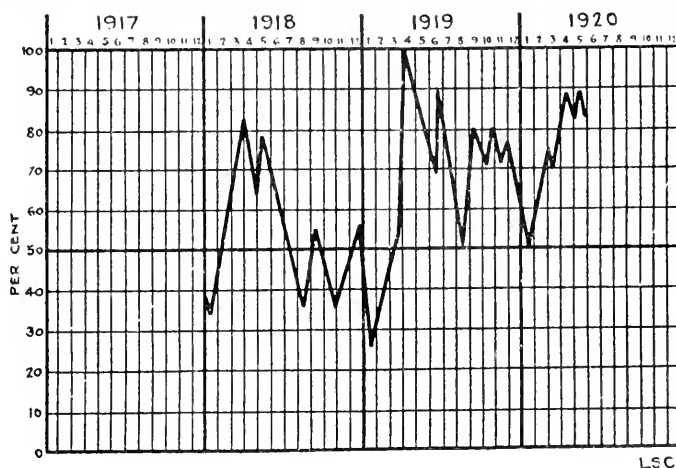


CHART 10
Fluctuations in a third cutting department.

capacity the year around (See Diagram 4, Chart 13), has the good-will and hearty coöperation of its employes and has all the mechanism necessary for effective, economical planning and operation of its plant.

INDUSTRIAL RELATIONS

We have spoken of the fund of industrial ill-will of the workers toward their employers that has grown largely out of the spectacular recurring seasonal unemployment. The workers also have vivid memories of the wage pitiabilities they received in their former years of sweatshop exploitation. The result in recent years has been a rapid unionization of the industry. This has not only brought wage-rates up to proper relationship with wage-rates in other industries, and even beyond, and established the forty-four hour week, but also has done much to improve sanitation in the factories. The union policy looks toward the abolishment of the sub-contracting system.

Industrial discord is still an important source of waste. A large part of the New York market was idle during a fourteen weeks strike immediately fol-

lowing the Armistice. Unionization strikes held another group idle several weeks in the summer of 1919; likewise, a group of Chicago plants. As we write, the New York market is just resuming operations after a contest of strength, commencing officially in December, 1920 in what one party called a "strike" the other a "lock-out," to destroy the union and reestablish the open shop and piece-work. A similar contest has been going on in Boston. Since the unionization of the industry, however, official strikes have been relatively infrequent. The collective bargaining agreements forbid strikes, lock-outs and stoppages and provide impartial machinery and procedure for adjusting disputes. The higher union leaders are men of intelligence and understanding, sometimes rising to statesmanship, who act in accordance with these arrangements and do not sanction strikes and stoppages.

In most markets, however, these arrangements are still so new that neither the employes nor the employers appreciate their responsibilities under them. In wage settlements the worker concentrates his attention on the question of whether he is to get the de-

sired wage increase. As a result after the decision is rendered it never occurs to him that there were conditions subject to which the increase was granted and he overlooks his part of the bargain. In New York a seasonal wage settlement was effected in April, 1919 to endure until October 1st. New demands were presented and a new settlement effected in June to last until December 1, again in August, and again in October. In the meantime, thousands of individuals and many shops had made additional demands directly upon their employers and even been granted increases. In the official demands in August, both sides pledged themselves in advance to abide by the arbitrator's decision. He awarded a general five-dollars-a-week increase coupled with the order that no worker and no union representative should make any further individual or shop demand upon any employer during the period for which the settlement was to endure, and that no employer was to entertain any such demand if made. The award was announced at 1:30 a. m. Before 6:00 p. m. one union delegate had demanded of the employers an additional one dollar a week for the employees in six shops and had his demand granted. On the first pay day after the award, another manufacturer was greeted with a demand from his employes for an additional increase of three dollars. When reminded that they had just received a five-dollar increase they naively replied: "Oh! The union got us that. Now *you* must do something for us." The arbitrator's order was freely disobeyed by many workpeople, many union delegates and many employers. Many unofficial shop increases were granted. A number of outlaw strikes occurred in other shops to enforce demands that had been refused. This all culminated in fresh official demands in October. The employers, however,

were not without responsibility for these conditions. Not only did many of them entertain demands when made upon them, but, under the pressure of an unprecedented demand for clothing, their keen competition for labor, especially to man their new shops, advanced hiring rates higher and higher. This caused rapid migration and inequality of rates in old shops where vacancies were filled at the higher rates and adjustments were not made for the workers already there. Discontent, individual and shop demands, and further migration and general instability were the natural result.

In Chicago, where collective bargaining started in the factories of Hart, Schaffner & Marx in 1911, the leaders are more experienced and the workers are better educated concerning their responsibilities under agreements. Nevertheless stoppages are not infrequent, and, although general wage adjustments are not demanded except in the seasonal settlements, there has been, nevertheless, a continuous process of raising wage rates by the process of "nibbling" at individual piece-rates in individual factories. Apparently the same process has been going on in other markets.

This is by no means the whole story, however. The writer has listened with great interest while a union deputy took, one by one, twenty-seven cutters to task very earnestly and very forcibly for not keeping their production up to the standards agreed upon. The tailors of a certain large house compelled the cutters to coöperate with the management in working out mutually satisfactory performance standards and consented to a substantial increase in their own standards. The union has recognized the necessity of reducing production costs in both Chicago and New York, negotiating a ten per cent reduction in wage rates in the former and

a fifteen per cent reduction in the latter. In New York they have so far recognized the manufacturers' need of stabilized and dependable costs as to recede from their former attitude and negotiate shop and sectional production standards. We can expect much imperfection in the present stage of experience, but progress is being made.

Here and there manufacturing institutions, those that have passed out of the hands of their founders into those of the second generation, are feeling the need of something better than the di-

rect autocratic unsystematic management of the original proprietor, or even the mediocre systematic management that they have attained. With this in view, they have engaged management engineers to assist them onto a more scientific basis. At least five such concerns have made this move within the last two years. Although the men's and boys' ready-to-wear clothing industry has been and is still one of the worst and most wastefully managed industries in the United States, it is making progress out of that condition.

Standards for Granting Credit

By J. H. TREGOE

Secretary-Treasurer National Association of Credit Men

CREDIT is the least understood of all the elements entering into commerce. Digging under the surface of American industrial history, one must recognize that credit illiteracy has largely been responsible for both hectic flushes and serious periodic depressions.

1837 was a year made distinctive by the second of our major panics. In that year 788 state banks with a capital of 290 millions were in operation. These banks had outstanding note issues of 149 millions and loans of 525 millions. Statistics of the mercantile credits that year are not available, but the over-extended condition of the banks was indicative of a prevailing speculation in real estate, internal improvements and business generally. There was apparently no thought for the future, and the bursting of the inflated credit bubble came, no doubt, as a surprise when it could have been clearly foreseen by the careful student. Credit illiteracy prevailed at that period and the violation of fundamental credit laws produced serious reactions and disorderly liquidation.

Moving forward two decades to 1857, a year marked by the third major panic in the nation's commerce, we find that 1,416 state banks with a capital of 371 millions and deposits of 231 millions were then in operation. The total sum of specie owned by these banks amounted to 58 millions. They had outstanding note issues of 215 millions and loans of 684 millions. Once again speculation was rife and fundamental laws were being attacked at every turn. Business was in a hectic flush and the complete unsoundness of the situation was demonstrated in a serious reaction and another disorderly liquidation.

Figures are perhaps unnecessary in a review of the major panics of 1873 and 1893. It is rather toward the peculiar psychology of the panic of 1893 that attention may be turned. That panic shows very clearly a certain attitude—that Americans have too frequently rated the acquisition of things as superior to the making of standards. Removing the surface sod in an investigation of credit history, we find con-

sired wage increase. As a result after the decision is rendered it never occurs to him that there were conditions subject to which the increase was granted and he overlooks his part of the bargain. In New York a seasonal wage settlement was effected in April, 1919 to endure until October 1st. New demands were presented and a new settlement effected in June to last until December 1, again in August, and again in October. In the meantime, thousands of individuals and many shops had made additional demands directly upon their employers and even been granted increases. In the official demands in August, both sides pledged themselves in advance to abide by the arbitrator's decision. He awarded a general five-dollars-a-week increase coupled with the order that no worker and no union representative should make any further individual or shop demand upon any employer during the period for which the settlement was to endure, and that no employer was to entertain any such demand if made. The award was announced at 1:30 a. m. Before 6:00 p. m. one union delegate had demanded of the employers an additional one dollar a week for the employes in six shops and had his demand granted. On the first pay day after the award, another manufacturer was greeted with a demand from his employes for an additional increase of three dollars. When reminded that they had just received a five-dollar increase they naively replied: "Oh! The union got us that. Now *you* must do something for us." The arbitrator's order was freely disobeyed by many workpeople, many union delegates and many employers. Many unofficial shop increases were granted. A number of outlaw strikes occurred in other shops to enforce demands that had been refused. This all culminated in fresh official demands in October. The employers, however,

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stantly alongside the wonderful ambition of the American temperament and the tremendous powers of the nation to invent and to produce, an appalling absence of intelligent perception of the uses of credit.

Coming down to the present period, and dissolving the existing depression into its component parts, we find violations of every canon of the credit decalogue and a repetition of the extravagant and unwholesome ideas that brought interruptions to progress in former years of depression and panic. It is high time for business and financial pilots to get a clearer grasp of credit currents and to become better qualified to steer the ship of commerce through the rocks and shoals. Business men can well afford to take inventory of the events of the past few years so that from the lessons of experience may come a realization of the unbreakable connection between credit and commercial prosperity or depression.

WHAT CREDIT IS

The definitions of credit given by many of the economists define its purposes and utilities but not credit itself. Mr. Clay defines it as a means for financing production in anticipation of future demands.¹ Other definitions could be cited but most of them present merely purposes and utilities rather than an exact definition of what credit really is. Speaking simply, credit is the modern medium of exchange.

From the beginning of men's association with one another credit was used in some form or manner but not until after the Industrial Revolution did it become a commercialized system and play its full part in the development of modern commerce.

¹ *Economics for the General Reader*. It is not unusual for economists to define credit substantially as follows: Credit is a promise to pay, usually to pay money. [Ed.]

The original and elementary method of exchange termed "barter," and that medium of exchange called "money" were not sufficiently adaptable and could not influence or keep pace with a large and expanding commerce. Largely because of its flexibility, because it could contract and expand according to the requirements of commerce, credit proved itself to be the medium that would build up the internal and international commerce of the trading nations of the world. Credit is, therefore, the atmosphere of modern business. Without credit, business would wither and society resolve itself into conditions of centuries ago.

CREDIT ARISES OUT OF COMMERCIAL TRANSACTIONS

The simple definition of credit given above will help anyone to understand one of its primary and fundamental laws. *Credit is not of itself a value but is representative of value.* Credit cannot be manufactured out of thin air. Banks are often spoken of as manufacturing of credit. This is a misconception, for credit arises from an underlying value and may be granted only as values are created. When the underlying value becomes too thin for the credit superstructure or is removed entirely, a dangerous situation is created and inflation arises that will result in an expensive liquidation if it is not handled and controlled with consummate skill. As commodities supporting credit are transferred through the various processes of production and distribution, from raw materials to consumer, there should be an extinguishment of credit with each transferral and a complete liquidation of the various credits that have attended the transferral processes when the commodity is finally consumed.

Analyzing carefully the statistics cited above for the years 1837 and

1857 as they relate to the capital, circulation and loans of the state banks operating during these years, we can clearly see that the primary law of "underlying value" was completely neglected and that the over-extended condition in these periods caused violent contractions that were necessary to bring the sum of existing credits within proper and safe boundaries. If such contractions are accomplished without disorders then a disturbance merely will have occurred, though it may bring serious costs to the business and banking interests. But if the contraction becomes violent, a panic ensues with all of the disorders attendant upon this aberration of the human mind.

CREDIT IS NOT CAPITAL

A second very important and fundamental law of credit is that *credit is not capital*. This is true whatever definition of capital may be used. Attempts to make credit do the work of capital are violations of this law and will exact always the penalties that attend the intentional or ignorant transgression of economic laws.

The present depression has been occasioned chiefly by a widespread and senseless attempt to make credit do the work of capital. Credit has a definite beginning and ending. Credit must liquidate. Wherever possible credit should be in a self-liquidating form. Instruments, therefore, assigning a definite date for the extinguishment of credit are more scientific and useful than ledger charges on which our principal commodity business is transacted. The past three years have witnessed a number of instances in the credit field where this law was directly violated, and, strange to say, these offenses were committed largely by men of affairs, looked to as leaders in commerce and finance. With our underlying wealth, a strict conformity

to the fundamental laws of credit would have saved much of the present depression and enabled us at least to have kept our feet on the ground. We should have been better informed and acted with greater wisdom and moderation.

An increase of distribution through an increase of prices and not an increase of units is a danger mark always and points out the arrival of the hour when retrenchment and not expansion should set in. All over the land there were flagrant instances of liquid credit converted into fixed assets and much too frequently these mistakes happened with the full knowledge and assistance of bankers. A business enterprise must always have a sufficient sum of liquid capital in the form of assets that may be readily converted for immediate or pressing needs. To provide for increased distribution and speculative buying, large portions of this liquid capital were converted into fixed assets, and furthermore, large portions of the available commercial credit within the powers of the banks to grant for emergency purposes were mopped up by the process and used for the extension of plants and for commodity commitments that have since proved un lucrative and unable to earn even simple interest on the investments. No natural law in the credit world must be more closely observed than this one, that credit is not capital, and that any attempt to make credit do the work of capital is an unpardonable offense which will exact its toll and produce nothing but disappointments and losses.

CREDIT AND COÖPERATION

Coöperation is another fundamental law of credit development. Commodities may be produced and offered in competition but credit defies this commercial process and will strongly resent anything but coöperative treatment.

Individual action was long the controlling note of our national commerce. Not until 1896 did the coöperative vision burst upon our people. In a quarter of a century the American people have amassed treble the wealth and many times the commercial powers that were built up in the previous century. Perfect faith must exist in the relations of creditors to one another and in the relations of creditors to debtors. Any underhand motive—the desire to save oneself at the expense of others—is a hindrance to credit development and will prove always an expensive and an unwise practice. Coöperation is a divine principle of human action and is wonderfully exemplified in the credit world. Subordinating one's ideas to the ideas of the community is a principle of great promise. In the handling of credit the unreserved interchange of experiences and the combination of action will save much waste and prove of substantial advantage to the nation's commercial progress.

Credit has its material and moral elements. The seller of commodities, and the lender of money will ask himself consciously, or unconsciously, these two questions of the credit risk: "Is the buyer or borrower able to pay, and is he willing to pay?" A favorable response to these questions establishes confidence, and confidence is necessary for the extension of credit. A negative reply withdraws confidence. A partial or incomplete response to these questions creates serious problems for the credit grantor.

THE THREE C'S OF CREDIT

A measuring rod has long been designed for the credit risk. It is termed

the three C's of credit: Character, Capacity and Capital.² When the risk measures up to this rod in every detail, it is rated a perfect risk. This complete measurement, however, happens infrequently in the granting of credit and very much rests on the skill of the credit grantor to determine how nearly the risk complies with, or how far short it falls of this standard of measurement.

The American temperament runs easily to speculation, so there is too frequently the neglect of standards and the taking of mere gamblers' chances in the granting of credit. The annual bad debt waste and the annual sum of frozen credits—clogging as they do the free flow of this ally to our large commerce—drive home with great power and conviction the fact that credit is indeed the least understood of all the elements entering into commerce and that the defect must be corrected if we are to make proper uses of our resources and hold our deserved position in world affairs.

Standards of credit granting have always existed and should have been understood and conformed to in our commerce. A halting of commercial progress will prove a great blessing if it is the occasion for the study of underlying causes and principles of credit,—and if a knowledge of the truths about credit is woven into future commercial practices. It is no reflection on the nation's future and powers to urge that more time be given to the study of fundamentals and that the transaction of business be based not so much on mere chance as on sound and righteous credit standards.

² In the case of commercial banking a fourth "C," collateral, is usually included. [Ed.]

Taxation That Will Not Impair Business

By CLYDE L. KING

Wharton School of Finance and Commerce, University of Pennsylvania

PRINCIPLES as to what constitutes fair and equitable taxation are derived, not from theory, but from the traditions, the customs and the standard of justice of a people. American experience has worked out the following principles as to taxation:

1. *Taxes are levied on the basis of ability to pay.* The time was when taxes were shifted from those in ruling power who were able to pay to those without ruling power who were least able to pay. American practice, however, has accepted in full the principle of ability to pay as a test for fair taxes.

2. *The tax collected from the consumer or producer should go to the government.* The exception to this as a rule is the protective tariff. The protective tariff, however, is not so much a tax as a policy, like the tax on oleomargarine. The protective tariff is levied to gain ends other than revenue primarily.

3. *The cost of collection should be as low as is consistent with equity and fairness to different classes of producers and property owners.* Low cost is not the sole test. The tax with the lowest cost of collection is the income tax. To carry the principle of low cost to an extreme would mean primarily to have no taxes other than the income tax. The punitive taxes and corrective or remedial taxes are for an end other than revenue only.

4. *The tax should be equitable, as between country and city, as between different classes of property owners, and as between different sources of income.*

5. *There should be a minimum of duplication in the work and costs of tax collecting agencies on the one hand, and the sources of taxes on the other hand.*

With these principles all will agree. Few will agree in their application. They are the principles, however, that will be kept in mind in the discussion of specific taxes in this article.

THE COST OF NATIONAL GOVERNMENT

In Table I is shown the recapitulation of appropriations for the fiscal years 1920-21 and 1921-22, as given by Senator Warren in the Congressional Record of July 18, 1921.

CAN NATIONAL EXPENDITURES BE REDUCED?

An examination of the appropriations enumerated in this table will show that the outstanding expenditures of the national government are for wars, past, present and future. At the height of our war expenditures, \$9.30 out of every \$10 paid by the taxpayer went for war purposes. At the present time, about \$8.75 out of every \$10 of taxes is going for wars, past, present and future. The tax now paid into the national treasury by the users of tobacco would just about support the legislative, executive and judicial departments of the national government. Roughly speaking, the receipts from amusement and luxury taxes would about support all the other normal activities of the national government. The income tax, the excess profits tax, the corporation tax and the tariff all go for war purposes.

This points the way through which the taxpayer can get relief if he desires it. The extent to which he desires relief will depend on his policy of national protection. Practically the entire increase of the present budget over the 1913 budget is due to the war. Our commitment for interest on the

TABLE I

RECAPITULATION OF APPROPRIATIONS, 1921-22

Sixty-sixth Congress, Third Session, and Sixty-seventh Congress, First Session

<i>Title of acts</i>	<i>Total</i>
REGULAR ACTS	
Agriculture.....	\$36,404,259.00
Army.....	328,013,529.80
Diplomatic and Consular.....	9,326,550.79
District of Columbia ¹	19,512,412.99
Fortifications.....	8,038,017.00
Indian.....	9,761,554.67
Legislative, etc.....	110,348,018.75
Navy.....	410,673,289.23
Pension.....	265,500,000.00
Post Office ²	574,057,552.00
River and harbor.....	15,250,000.00
Sundry civil.....	384,196,480.41
Total, regular acts.....	2,171,081,664.64
DEFICIENCY ACTS	
First deficiency, fiscal year 1921.....	275,256,508.87
Second deficiency, fiscal year 1921.....	106,755,657.06
Urgent deficiency, expenses of first session, Sixty-seventh Congress.....	409,065.44
Total, deficiency acts.....	382,421,231.37
MISCELLANEOUS ACTS ³	
Construction of hospitals, war-risk insurance patients.....	18,600,000.00
Valuation of property of carriers, Interstate Commerce Commission, fiscal year 1921.....	1,000,000.00
Claims of officers and enlisted men of the Army for loss of property lost in the military service.....	300,000.00
Allotment of lands within the Fort Belknap Indian Reservation, Mont.....	270,000.00
Budget and accounting act.....	225,000.00
Sundry miscellaneous acts.....	107,952.58
Total, miscellaneous acts ³	20,502,952.58
PERMANENTS AND INDEFINITES	
Interest on the public debt.....	922,650,000.00
Sinking fund.....	265,754,864.87
Customs Service, repayments, etc.....	27,000,000.00
Philippine and Porto Rican funds.....	4,000,000.00
National bank examiners, salaries and expenses.....	1,700,000.00
Federal Board for Vocational Education.....	5,438,000.00
Canals and river and harbor work.....	7,244,600.00
Pay of the Army, deposit fund.....	2,000,000.00
Special and trust funds, Navy Department.....	13,040,000.00
Civil service retirement and disability fund.....	5,097,000.00

¹ The amounts for the District of Columbia, after deducting sums for the water service (payable from the water revenues) and sums for playgrounds, street extensions, minimum wage board, and community forums of public schools (payable wholly from District revenues), are payable 60 per cent from the revenues of the District of Columbia and 40 per cent from the Treasury of the United States.

² The expenses of the Postal Service are payable from the postal revenues to the extent they are sufficient therefor and the remainder is paid out of the Treasury.

³ Miscellaneous acts for the Sixty-seventh Congress, first session, include these approved prior to July 1, 1921.

Agricultural and mechanical colleges	\$2,500,000.00
Payments to States from receipts under oil-leasing act	3,750,000.00
Indian funds and interest on same	23,300,000.00
Meat inspection, Bureau of Animal Industry	3,000,000.00
Coöperative agricultural extension work	4,080,000.00
Construction of roads and trails, national forests	1,000,000.00
Payments from national forest funds and coöperative work, Forest Service	3,570,000.00
Increased compensation to certain Government employees (\$240 bonus) ¹	35,000,000.00
Miscellaneous	5,651,896.00
Total, permanents and indefinites	1,335,776,360.87
Grand total	\$3,909,782,209.46

RECAPITULATION OF APPROPRIATIONS, 1920-21

Sixty-sixth Congress, Second Session

<i>Title of appropriation acts</i>	<i>Total</i>
REGULAR ACTS	
Agriculture	\$31,712,784.00
Army	392,558,365.00
Diplomatic and Consular	9,218,537.91
District of Columbia ²	20,639,414.87
Fortifications	19,133,442.00
Indian	10,020,555.27
Legislative, etc.	104,749,326.11
Military Academy	2,142,212.70
Naval	438,784,574.00
Pension	279,150,000.00
Post Office ³	462,575,190.00
River and Harbor	12,400,000.00
Sundry civil	437,106,806.92
Total, regular acts	2,220,191,208.78
DEFICIENCY ACTS	
Urgent, fiscal year 1920	33,110,000.00
Second, fiscal year 1920	88,461,889.63
Railroad and urgent, fiscal year 1920	309,717,285.79
Third, fiscal year 1920	55,603,208.03
Total, deficiency acts	486,892,383.45

MISCELLANEOUS ACTS

Metropolitan and park police, District of Columbia	339,474.05
International Communication Conference	75,000.00
Retirement of school-teachers, District of Columbia	30,000.00
Fire department, District of Columbia	279,500.00
Transportation act, 1920 ⁴	500,050,000.00

¹ This sum is approximated.² The amounts for the District of Columbia, after deducting sums for the water service (payable from the water revenues), and sums for playgrounds, street extensions, and minimum wage board (payable wholly from the District revenues), are payable 60 per cent from the revenues of the District of Columbia and 40 per cent from the Treasury of the United States.³ The expenses of the Postal Service are payable from the postal revenues to the extent they are sufficient therefor and the remainder is paid out of the Treasury.⁴ This sum is made up as follows: \$300,000,000 for new loans to carriers, \$200,000,000 on account of Federal control of railroads, and \$50,000 for expenses of the Railway Labor Board. No amount is included to cover sums estimated to carry into effect the six months' guaranty to carriers or to pay the losses of "short-line" railroads.

RECAPITULATION OF APPROPRIATIONS, 1920-21—Continued

Sixty-sixth Congress, Second Session

<i>Title of appropriation acts</i>	<i>Total</i>
MISCELLANEOUS ACTS—continued	
Relief of certain Army officers	\$10,000.00
Vocational rehabilitation of persons disabled in industry	871,000.00
Federal water-power act	125,000.00
Relief of New Jersey Shipbuilding & Dredging Co.	118,309.16
Miscellaneous private relief acts	55,782.62
Increased compensation to certain Government employees ¹	35,000,000.00
Increased compensation, Postal Service, under reclassification act ¹	41,855,510.00
Total, miscellaneous acts	578,809,575.83
PERMANENTS AND INDEFINITES	
Interest on the public debt ¹	1,017,500,000.00
Sinking fund ¹	287,500,000.00
Loans, expenses of ¹	12,456,000.00
Customs Service, repayments, etc. ¹	20,200,000.00
Philippine and Porto Rican funds	4,000,000.00
National bank examiners, salaries and expenses	1,000,000.00
Federal Board for Vocational Education	3,836,000.00
Canals and river and harbor work	4,544,000.00
Pay of the Army, deposit fund	2,000,000.00
Special and trust funds, Navy Department	4,250,000.00
Agricultural and mechanical colleges	2,500,000.00
Indian funds ¹	23,775,000.00
Meat inspection, Bureau of Animal Industry	3,000,000.00
Road construction ²	104,000,000.00
Miscellaneous ¹	12,846,752.29
Total, permanents and indefinites	1,503,407,752.29
Grand total ²	\$4,789,300,920.35

¹ This sum is approximated.² This sum includes \$78,000,000 appropriated for the construction of roads for the fiscal year 1921 by the Post Office appropriation act approved Feb. 28, 1919.

present public debt alone (\$923,000,000 in 1920-21) is about double the annual cost of our national government before the war.

INTEREST ON ALLIED DEBTS

The tax burden on the American taxpayer could be reduced about half a billion dollars a year should we require our allies to pay the interest on the ten billion dollars advanced by our national government to them for war purposes. There is a general consensus of opinion that we could not collect this interest now if we would. It is equally obvious that we would not now collect

it if we could. This interest can be paid only in goods, and certainly at present price levels, goods in addition to those required for exchange of our surplus products are not desired from European countries. Such a flow of goods could only depress prices further. Taxpayers, therefore, can look for little immediate relief from this direction.

EXEMPTIONS FROM TAXATION

The national government during the war period adopted two fallacious policies that are largely the cause of our present industrial ills. The first of

these was to put the interest rate on public bonds as low as it was. We have paid a reasonable interest rate over and over in the form of higher prices and hence in larger public debts consequent upon inflation. The second error was to exempt certain national bonds from taxation. Professor Edwin R. Seligman has estimated that local, state and national governments are now losing about \$600,000,000 a year through the exemption from taxation of our \$24,000,000,000 of federal debt, and \$8,000,000,000 to \$10,000,000,000 of state and local securities. Obviously the Federal Government can now do little to redeem this error as to past issues. Business men, however, should make certain that the error is not repeated. In view of the fact that under our constitution the states and the national government are each sovereign in their own fields it would be impossible, by national law, to prohibit the states from exempting state and municipal securities from state and local taxation. And the importance of preserving the autonomy of our states in their own fields would make inadvisable a national constitutional amendment attaining the same ends. The taxpayer must see to it hereafter that public securities are not exempt from taxes. He can now get little consolation from that source in the way of reducing present tax levies.

READJUSTMENT OF THE BURDENS OF TAXATION

Assuming no substantial change in our war expenditures and assuming a reasonable funding of our short term national debts, we now need about four billion dollars a year for the national government. The present taxes will yield just about this sum in 1922. There is, therefore, no special need for additional sources of revenue. The only issue now is as to whether there

should be better readjustment of the existing burdens of taxation.

EXCESS PROFITS TAX

Many thousands of dollars have been spent in propaganda to the effect that the excess profits tax increased the cost of living. The argument was that the corporations subject to the tax added to their prices not only the tax, but several other imaginary costs along with the tax. Recent events have shown the fallacy of this argument even to its most obdurate friends. Whatever may happen in a seller's market, it is clear from recent events that the excess profits tax does not prevent a fall in prices. In a seller's market some may accept the glib theory that price is a question of mathematics; that the tax is merely added in with all its incidental costs and risks as one of the elements in price and hence the consumer bears the burden no matter what the form of the tax. This argument has proved groundless, not only as to the excess profits tax, but as to the income surtaxes as well. When the marginal producer is exempted, as he is in both the income and excess profit taxes, and when a price is fixed under fair competition, there can be no adding such taxes to the price. The excess profits tax is now more an exemption tax than a tax levy. Many of the former opponents of the tax may shortly find themselves in the position of favoring it in preference to the alternatives.

The consensus of opinion, however, now is that the excess profits tax is to go, not because it adds to the cost of living, but because it is difficult to ascertain and because it is unequitable as between businesses whose invested capitals were acquired, let us say, before the war and during the war.

There is unanimity of opinion, also, that the higher surtaxes should be re-

peeled down to the limit of 40 per cent. This is rendered advisable particularly in view of the large field of tax-exempt securities into which such income groups may put their money.

What taxes shall take the place of the excess profits tax, which under the present industrial conditions is ceasing to pay substantial sums into the Treasury anyhow, and what taxes shall take the place of the receipts from the higher brackets of surtaxes? There are really two alternatives for serious consideration. One is the sales tax, and the other is a graduated tax on the income of corporations.

Certainly under present conditions of widespread unemployment and of a reduced purchasing power among our farmers below that of many decades, no statesman will seriously champion an extension of consumption taxes.

A graduated corporation tax is preferred to the sales tax by the author of this article for the following reasons: 1. It is based on ability to pay. 2. It will give an equitable taxation as between individuals and partnership on the one hand, and corporations on the other. And this, American practice has insisted upon; indeed, we have in too much of our state legislation put heavier tax burdens on corporations.

OBJECTIONS TO SALES TAX

The sales tax, in any form proposed, whether a turn-over tax or a tax on retail sales only, violates the cardinal principle of ability to pay. The tax would be paid by the bankrupt as well as by the individual or corporation with a net income. Such a tax would retard the moving of stocks put in at higher prices, and hence is peculiarly unfitted to the present industrial situation. It would be unjust as between competitors in the same industry depending on the degree of integration in the various industries. It would be

particularly odious and heavy in those industries where the turnover would be rapid in proportion to capital invested. More important still, it is an indirect tax, to a certain extent, and if adopted would abide with us to an extent that a direct tax would not. The direct tax has the distinct advantage of making those who pay it watchful of governmental expenditures and governmental efficiency. We have had already expensive experiments with taxes that were not felt because not paid directly. Business men will find that the sales tax will not be shifted in all instances as so many are now prone to believe. Consumption taxes on necessities have been before the American people in a number of ways, and have always been settled adversely. French and English experience is replete with attempts to collect a tax on everything, and such general taxes have invariably been abandoned for the income tax, the inheritance tax and other means of getting directly at the source of wealth at little cost.

THE TARIFF

Before we can have an exchange situation that will allow us to find an export market for our surplus goods, we must have a flow of goods into this country. Moreover, if we are to collect in due time the interest on private debts and on public debts due from other countries, we must expect a flow of goods from those countries to pay this interest. To put on a general protective tariff that will exclude these goods is as short-sighted as the old English policy of putting the debtor in prison. Certainly we have passed beyond this point in our understanding of national economics. Our entire situation has changed. Instead of being a debtor nation, we are now the world's great creditor nation, and our tariff policy must be shaped accordingly. Tariff

policies we must have in order to meet the tariff policies of other countries, if for no other reason. And for national policies we may well adopt high protective tariffs on selected commodities. But in general the tariff must now be levied more with the thought of revenue than with the thought of prohibition of imports in order to raise prices on domestic goods.

NUISANCE TAXES

One sound principle of taxation is that the tax collected from the consumer should go on to the government. Those who buy fountain drinks are all aware that the tax is always collected. It is equally clear that not nearly all of this tax gets on to Uncle Sam.

The excise tax on certain commodities has been an American policy and will no doubt be continued. These excise taxes, however, should be levied on articles and under conditions so that the tax paid by the consumer really gets to the government. This can be done with the tax on tobacco and with many of the taxes on luxuries. Reasonable taxes on habits do not stop production.

There should be a readjustment of our excise taxes with these principles in view, and also with the principle of ability to pay in mind. This is particularly important to business men under present conditions of widespread unemployment.

THE ESTATE TAX

Our estate tax is new to our national experience. The tax is not as heavy as that levied in other countries, and offers an opportunity for expansion, if expansion be needed under the readjustments discussed above, to meet the national requirement of four billions a year. The estate tax is not a burden on production, nor at reasonable rates will it

stifle incentive. It is based on ability to pay and the cost of collection is low.

SUBSIDIES

The preceding arguments assume that we will not heavily subsidize any special groups or industries in the country, whether they be former soldiers, or transportation companies or private owners of merchant ships. The taxpayer has found out that the prevention of burdens is the best way to reduce taxes. Groups of all kinds will want subsidies directly or indirectly and all groups will accept the subsidies if they can get them. Eternal vigilance is the taxpayer's only protection in this matter. Those who want subsidies organize to get them. The taxpayers will prevent their getting them only with equally good or better organization.

STATE AND LOCAL TAXES

The total and per capita expenditures of all the states are given in Table II. An examination of this table will show that out of the \$8.60 spent per capita for the governmental cost of all the states in 1918, fifty cents per capita went to the general branches of state governments. We probably will not find that this particular expense can be measurably lowered. Neither will the thirty-two cents per capita for protection to personal property be materially lowered. When measured in service, certainly, no one will begrudge the twelve cents per capita spent on conservation of health and sanitation. Few, too, will begrudge the services rendered by the \$1.20 spent in the development of our agricultural and other national resources. Our state expenditures of thirty-eight cents per capita for highways will no doubt be increased rather than decreased, in order to make way for

TABLE II
GOVERNMENTAL COST PAYMENTS BY ALL STATES—1918

			<i>Dist.</i> <i>Gen. Dept.</i> <i>Per Cent</i>	<i>Total</i> <i>Per Cent</i>
I. <i>General Departments</i>	1918	<i>Per Capita</i>		
A. General Government	51,395,182	0.50	10.8	
B. Protection to Person and Property				
1. Militia—Armories	9,192,685	0.09	1.9	
2. Regulation	17,524,592	0.17	3.7	
3. All Other	6,501,658	0.06	1.4	
C. Conservation of Health and Sanitation				
1. Prevention and Treatment of Communicable Disease	7,237,723	0.07	1.5	
2. All Other	5,011,610	0.05	1.1	
D. Development and Conservation of Natural Resources				
1. Agriculture	17,061,201	1.16	3.6	
2. All Other	4,572,771	0.04	1.0	
E. Highways	38,828,799	0.38	8.2	
F. Charities, Hospitals and Corrections	118,084,025	1.14	2.49	
G. Education				
1. Schools	168,183,641	1.59	34.4	
2. Libraries	1,268,602	0.01	.3	
H. Recreation	1,248,094	0.01	.3	
I. General	32,851,140	0.32	6.9	
Total General Departments	473,961,723	4.58	100.0	83.7
II. <i>Interest</i>				
A. On Funded Debt	19,840,936			
B. " Floating Debt	2,411,497			
C. " Other Debt	826,414			4.3
	23,078,847			
III. <i>Expenses Pub. Ser. Enter.</i>	2,300,403	.02		.40
IV. <i>Outlays</i>	66,144,964	.63		11.6
Total	565,485,937	5.43		100.0
NON-GOVERNMENTAL COST PAYMENTS BY STATES—1918				
I. Payments for Purchase of Invest.	84,896,490	.80		25.0
II. Payments which decreased Indebtedness	116,126,235	1.12		35.0
III. All Other	129,160,620	1.25		40.0
	330,183,345	3.17		100.0
RECAPITULATION				
Governmental Cost	565,485,937	5.43		63.0
Non-Governmental Cost	330,183,345	3.17		37.0
Total	\$895,669,282	8.60		100.0

increasing motor traffic and in order to open up the market from farm to consumer. The \$1.14 per capita which we spend for hospitals, charities and correction is about the cheapest insurance we carry. And no one will want to reduce the \$1.61 per capita spent for schools, libraries and recreation. Certainly we do not want to lower the

service received for these expenditures. We do, if possible, want those services at less cost.

Table III shows the per cent of distribution of the general departmental expenses of all cities of 30,000 or over from 1903 to 1918. This table gives the per cents, and not the totals, but the uniformity of the per cents

TABLE III

COMPARATIVE SUMMARY OF PER CENT DISTRIBUTION OF GENERAL DEPARTMENTAL EXPENSES OF ALL CITIES OVER 30,000 FOR SPECIFIED YEARS 1903-1918

Object of Payment	1918	1917	1915	1913	1911	1909	1907	1905	1903
General Government	10.7	11.5	11.4	11.6	11.8	12.2	11.7	10.0	11.1
Police Department	10.9	11.0	11.3	11.6	12.0	12.6	12.4	13.3	13.6
Fire Department	8.3	8.5	8.8	9.1	9.5	9.8	9.6	10.1	9.8
All other Protection to Person and Property	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9
Conservation of Health	2.6	2.5	2.2	2.0	1.9	1.9	1.8	1.6	1.7
Sanitation or promotion of Cleanliness	7.8	7.6	7.9	8.1	8.2	8.1	8.1	8.1	7.5
Highways	10.1	10.4	11.2	11.2	11.6	10.6	12.0	12.0	12.4
Charities, Hospitals, and Cor- rections	7.4	7.2	6.8	6.4	6.6	6.9	6.6	6.3	6.5
Schools	31.4	31.1	30.2	28.9	28.6	28.2	27.7	28.7	29.3
Libraries	1.3	1.3	1.3	1.3	1.3	1.5	1.3	1.4	1.5
Recreations	3.5	3.5	3.7	3.7	3.7	3.5	3.2	3.4	2.7
Pensions and Gratuities	2.2	2.2	1.9	1.7	1.6	1.5	1.4	1.2	1.1
All Other	1.9	1.3	1.4	2.5	1.4	1.3	2.2	2.0	1.0

of the total appropriations will indicate that our policy in these expenditures has been consistently worked out over a period of years, and hence offers little possibility for downward revision, so far as service rendered is concerned.

When measured in terms of services, we shall not expect less from our city and state governments.

Can we get these services at lower costs? We can in certain ways. Some savings can be made in lost motion by further centralizing bureau organization in the national govern-

ment. But these savings cannot offset increased costs over a pre-war base. We will see what Mr. Dawes can do.

The dark continent of American administration is in the organization of our state governments. In most of our states we have not one governor but several score of them. Much real progress has been made in the last twenty years in putting city administration on a well organized basis.

Constructive public expenditures that return services for money received do not impair business.

Changing the Fundamental Structure of the Federal Reserve System

By HOMER JOSEPH DODGE

Editor, Federal Trade Information Service

THE delight which statesmen, politicians and economists find in experimenting with the money systems of the world is the root of a large proportion of business evils. Whether it is because the use of money plays so

large a part in American life, or whatever the cause, the monetary system of the United States has been the victim of almost ceaseless experimentation. This tinkering has not come to an end with the erection of the Federal

Reserve System, although that is the most comprehensive and definite banking system the nation ever has enjoyed.

Since the approval of the Federal Reserve Act on December 23, 1913, many amendments have been enacted, but for the most part they have been like the amendments to the American Constitution, supplemental and interpretive rather than contradictory and subversive of the original provisions. That this has been the case has not been by unanimous consent. From the very beginnings of the System, efforts have been made to alter in fundamental particulars the theory and method of operation of the Federal Reserve Banks.

THE FEDERAL RESERVE ACT IS NOT AND CANNOT BE FOOL PROOF

The history of monetary and banking legislation in the United States has been a political rather than a scientific chronicle. The tenets and aspirations of parties and politicians have been wrapped up in most of the banking law. The advent of the Federal Reserve System was heralded as a turning point in this policy. Here, said its proponents, was a purely scientific system from which all political color was banished and forever would be. Here was a banking system set apart from the fevers of partisanship which would operate automatically in response to the needs of commerce and on a purely impersonal basis.

Two distinct revelations may be experienced from an examination of the history of the System to date: first, that the one great weakness of the system is its susceptibility to political interference and control whenever the officials in charge of its operation are amenable to ulterior influence and, second, the amazement and dismay of groups of the people at finding that, in

the absence of influenced officials, the System proceeds scientifically and impartially.

The discovery by students and statesmen of these two qualities possessed by the American banking system has resulted in the making of determined efforts to amend the organic act for the purpose, on the one hand, of removing all susceptibility to the human element, and, on the other, for the purpose of rendering the System a convenience.

So long as men are required to conduct the banking system the susceptibility to political influence never can be removed, although it may be diminished, and this constitutes the abiding weak spot of the Federal Reserve System. So long as a sufficient number of interested bankers, business men and citizens are vigilant, amendment of the Federal Reserve Act for the purpose of prostituting its facilities to favored groups can be forestalled.

Controversy over the operation of the System and efforts to alter its manner of doing a banking business have been especially numerous during the last year. This activity has been prompted by the effect upon groups of the population of economic forces springing from the turn in the price scale.

The Federal Reserve Act was heralded by its framers and supporters as a measure for the regulation of credit. Because of the extraordinary sequence of events following immediately upon the organization of the System—indeed anticipating the opening of the Federal Reserve Banks—the regulatory provisions of the act had no opportunity to prove their efficacy. The European War burst upon the world with all its concomitant overturning of business. All the elements of commerce and credit which the act was designed to regulate had but one trend.

The entire business of the nation moved steadily along toward an unprecedented expansion. With the price scale rising from day to day, business practically was insured against failure. There never had been any doubt about the ability of the Federal Reserve System to accommodate itself to expansion; the question was whether it could contract.

CREDIT CONTRACTION—THE FIRST REAL TEST FOR THE FEDERAL RESERVE SYSTEM

No opportunity to test this came until the Armistice and then but a limited one. In the brief recession of business following the Armistice, the first test of the ease with which the emergency currency of the System could contract was experienced. Conspicuous success attended the event. For nearly three months the volume of Federal Reserve notes outstanding declined steadily and without friction. The ability of the new currency to contract in harmony with the orderly, easy and natural instance of business requirements was proved.

The spring of 1919 saw a resumption, greater than during the war, of the credit expansion. The Federal Reserve Board, out of deference to the problems of the Treasury in floating public loans, refrained from applying the untried machinery of the System for the curtailment of credit. Discount rates remained abnormally low in order that bond rates should not be bid up.

This could not last, and in December of 1919 the Federal Reserve Board abandoned the shadow of the Treasury and proceeded to put to the test the credit regulating powers of the act. The System had been in operation for nearly six years without this—its most important function—being demonstrated. Now came a trial of whether

the Federal Reserve System was, in fact, an efficient machine for the regulation of credit or merely a facility for issuing currency.

By approving successive increases in the discount rate at Federal Reserve Banks, the Federal Reserve Board brought to a halt the credit expansion, hastened the inevitable decline of commodity prices, put a stop to much profiteering and started the readjustment toward pre-war normal so much desired by all save those who had high-inventoried goods to sell.

WHAT THE SYSTEM HAS PROVED IT CAN DO

The second milestone in the testing of the Act had been passed. It now had proved it could contract the currency and could curtail credit expansion. During these years it had further proved the mercurial properties of its reserves, interbank rediscounting having been carried on with amazing success, placing the banking resources of the country at strategic points with the swiftness and precision of pieces on a chess board. It had proved the possibility—long doubted—of solidifying the banking community into a coherent and dirigible agency which could be directed in such a manner as to bring the greatest amount of efficiency to bear at a desired point. It had introduced and well advanced the bank check as a convenient medium of tender, free from vexatious and circumscribing exchange charges. It had perfected a nation-wide clearing system by which balances flowed from one end of the country to the other at the bidding of commercial pressure almost instantaneously.

Nor were these experimental years free from isolated opportunities of the System to prove its ability to forestall bank failures and arise to acute special emergencies.

FUNDAMENTALS OF THE SYSTEM SOUND

In these first experimental years, the Federal Reserve Act was tried out in almost every conceivable way and found capable of withstanding the shocks of business. Its fundamentals were observed to be sound. Only here and there had it been necessary to amend the Act and in all these cases amendments merely were supplemental and complementary to basic provisions of the organic act.

The fundamental principles of the Federal Reserve System may be stated as follows:

Liquidity of security as collateral for notes on which Federal Reserve currency is based, involving restriction of banks forming the System to a commercial rather than an investment business;

Mutability of rates of discount at the discretion of the Federal Reserve Banks, with the approval of the Federal Reserve Board;

Purity of motives and efficiency of management on the part of the personnel;

A regional rather than a central plan of organization.

ATTACKS ON THE COMMERCIAL CHARACTER OF THE SYSTEM

The maintenance of the all-important fundamental principle of liquidity has given friends of the Federal Reserve Act more concern, probably, than any other task. During consideration of the bill in the committees of Congress and on the floors of House and Senate, the utmost courage and determination was required to keep it free from the trammels of provisions admitting non-liquid security to the Federal Reserve Banks. Final enactment of the measure, comparatively free of such embarrassments, by no means stopped the onslaughts. Al-

most unceasingly amendments have been offered and pressed, looking to the opening of the Federal Reserve Bank portfolios to a miscellaneous assortment of unliquid securities. For instance, spirited efforts have been made to declare eligible for rediscount at Federal Reserve Banks commercial paper secured by railroad stocks and bonds, industrial stocks and bonds, municipal and public utility bonds. These securities, no matter how gilt-edged, have consistently been regarded by the Federal Reserve Board and by the Banking and Currency Committees of Congress as investment securities, and, as such, wholly unsuited as collateral for commercial paper. Organized efforts have been made to tear down this opposition to the admission of such paper, but so far they have proved unavailing.

During the war the attack on the sanctity of the liquidity of Federal Reserve security was particularly energetic and, in the opinion of some observers, partially successful. The declaration of war, followed by the laying down of a government financing program of unprecedented proportions, produced a species of hysteria. It was discerned that the banking system would be called upon to stand the utmost strain, the normal investment capacity of the nation being insufficient, without the aid of bank credit, to meet the drafts certain to be drawn upon it. Over the protests of some of the framers of the Federal Reserve Act, an amendment was approved permitting the issuance of Federal Reserve notes against both gold alone, and gold and commercial paper. The Board acquiesced in this amendment, but it was regarded as a war emergency measure, and to it has been attributed a large portion of the excess credit expansion which has occurred.

Similarly, the obligations of the War

Finance Corporation were admitted as eligible security for commercial paper. This latter authorization was scarcely availed of, if at all, and, of course, was without permanent effect, that corporation being of rather ephemeral nature.

When the Federal Reserve Act was in process of enactment, no member of either Committee, or either house of Congress, entertained the remotest anticipation of such a volume of government obligations as the war evoked. It had been half a century since the American people had been surfeited with government bonds. Throughout the lifetime of nearly every legislator who assisted in the framing of the Federal Reserve Act, the government bond had been the apotheosis of acceptable security for any sort of transaction. It was the sacred cow of public and private finance. It was a matter of course that it should be classed as a primary acceptable security at Federal Reserve Banks.

But soon the official printing presses, at the beck of the yawning war chest, began turning out government bonds with appalling speed. The gilt-edged security, which but a few months before had been dealt in only behind glass and brass partitions and discussed in whispers, now was being hawked by peddlers on the streets. Recently I have been told by statesmen who had practically a controlling influence in the framing of the Federal Reserve Act that had they been aware of what a few years would bring forth they coldly would have denied to all government securities any place at all in the portfolios of Federal Reserve Banks—would have barred them completely as collateral for eligible commercial paper.

But during the fever of war, the opposite view was taken. Preferential rates were made at Federal Reserve

Banks for paper secured by government obligations. Here was one of the departures from pure scientific banking which the System has had to fight from the beginning.

It will be noted that the Chairman of the Federal Reserve Board and the Secretary of the Treasury are the same man, under the law. It was no more than human that the man charged as Secretary of the Treasury with the duty of raising funds to prosecute the war at the cheapest obtainable rate would use his substantial influence to do all he could to make the bonds he was offering attractive to business men. To place them in a favored status as collateral security for commercial paper at a time when all business men were borrowing heavily to take advantage of boom opportunities was indeed an inducement to their purchase. Here was a cycle which preyed viciously on the liquidity of the Federal Reserve Banks. The Federal Reserve Bank rates—the rates which borrowers must pay—were kept low so that the bond rates could be kept low and save the Treasury money. The bonds were given preferential treatment as collateral security for commercial paper offered at these low interest rates. Everything favored the borrower. Inflation was the inevitable result.

In the last few months, the Federal Reserve Banks have set about a readjustment of this state of affairs and adverse discrimination, instead of preference, is being shown paper secured by government obligations. The differential on government-secured paper first came up to the straight commercial paper rate and then went above it, or rather, the commercial rate came down with no simultaneous reduction in the government-secured differential. Further, the practice of the Federal Reserve Banks in lending par on government bonds, despite the

depreciated market value, has been abandoned and governments now must stand the same market test, in the collateral drawer, with other securities.

And further, during the war the portfolios of the Federal Reserve Banks were thrown open to a miscellaneous assortment of acceptances, the liquidity of which might well be questioned. Acceptances, indeed, were found by a special investigation conducted in the winter of 1919-20 by the Federal Reserve Banks of Boston, New York and Philadelphia to be the instruments used in the financing of exports to Europe. Drawn for relatively short periods, they were being renewed over and over again and were settling down to the lethargic slumber of frozen credits, the European buyers against whom they had been drawn receding farther and farther from possibility of liquidation. Many of them might as well have been drawn on the Man in the Moon. Yet they had been accepted on the American seaboard and, under the law, rediscounted at Federal Reserve Banks.

THE FARMERS' RAID ON THE RESERVE SYSTEM

The distress of the producers of farm products, incident to the world-wide recession in prices, has, in the last year, caused a new attack on the fundamental principle of liquidity of the System. The farmers have erected at Washington a lobby which is stronger than ever the organized labor lobby was. Crystallized through the activities of this lobby, much propaganda has gone out blaming the Federal Reserve Board for the decline of prices and for the ruination of the farmer. In the fall of 1920, earnest efforts were made by the farmers to induce the Federal Reserve Banks to distend credits to a compass which would permit the holding off the market of practically the whole

harvest. When the Board declined to connive with the farmers in an attempt to forestall what was regarded as an inevitable economic development, they cried treason.

This was the point at which the members of Congress from agricultural states, who had assisted in the framing of the Act, experienced acute dismay, discovering that their creature was indeed functioning as they had boasted it would, without fear or favor, scientifically and bereft of partisan bias. Many affirmed that it was the intention of the framers of the Act to aid the farmers in such crises and an organized effort was made and still is being maintained to rewrite the Act into a breadline charter for needy husbandmen.

There are pending before the Banking and Currency Committees of both houses of Congress, bills proposing to define as eligible for rediscount at Federal Reserve Banks the paper of cotton factors, of wheat commission merchants and of others who would use the resources of the System for holding crops off the market for higher prices. Other measures, having this same background of rural relief, would admit such securities as irrigation and development bonds to the list of acceptable collateral. It is unlikely that the eastern influence in Congress will permit these attacks on the principal fundamental of the Federal Reserve System to succeed.

THE OUTCRY AGAINST REGULATORY DISCOUNT RATES

The second fundamental of the system is given as the mutability of rates of discount at the discretion of the Federal Reserve Banks, with the Board's approval. It has been seen how the System utilized this element to control the credit expansion during the last eighteen months, and with

what conspicuous success. Through the pressure of rates, alterable at discretion, the System squeezed a billion dollars of speculative funds out of the stock market in less than a year, diverting it to productive uses in the agricultural and manufacturing regions. Turning upon another point, the System squeezed another tremendous sum out of the speculative branch of the commodity market, diverting the credit again to productive uses. Gamblers, hoarders, profiteers, promoters and all traders classed as not legitimate in times of stress, were in quick succession routed by means of this baton of power—the interest rate answerable at a nod to the occasions of the Federal Reserve System. With all the boards, commissions, committees and investigators which the government had employed throughout the war and post-Armistice period, not a point was gained in the effort to reduce the high cost of living until the Federal Reserve Bank rate was brought into play.

Now it is proposed by some of those who felt the chastening effect of the rate changes, that Congress delimit the rates to be charged. Operating wholly at the dictates of and, indeed, constituting a part of, the law of supply and demand, it is sought to strike at this fundamental by removing discretion as to its use and making it static.

Part of the agitation for this change has arisen from reports of large earnings by the Federal Reserve Banks, wrested, it has been declaimed, from the pockets of poor farmers. In the first place, earnings above six per cent are covered into the Treasury of the United States and become public funds; but of more importance, is the obvious fact that in times of brisk demand for accommodation, relaxing of collateral restrictions and lowering of interest rates would increase rather than diminish the total earnings of the Reserve

Banks because of the vastly greater volume of business which would be thrust upon them. Furthermore, there is the important consideration that such a course probably would break the banks.

THE DIFFICULTY OF KEEPING POLITICS OUT OF THE SYSTEM

The Federal Reserve Banks themselves, contrary to a popular notion, are not owned by the government. Not a cent of Treasury capital is in them. They are private institutions under government control, dedicated to public use and employed as federal fiscal agents. The Federal Reserve Board, however, is appointed by the President, the Senate concurring. This introduces the political element.

Here is an opening for the entrance of politics and the experience of the System has been that a constant fight has been necessary to keep the third great fundamental of the System, purity of motives and efficiency of management on the part of appointed officials, secure. The Board has been peculiarly fortunate so far in keeping aloof from politics, despite efforts on every hand to inject that element into banking control.

With the agitation for the relaxation of collateral restrictions and the fixation of interest rates, also has come a movement to give a political color to the Board. Bills are pending in Congress, supported by the agricultural interests, to effect this. They provide that the Secretary of Agriculture and the Secretary of Commerce—both necessarily political appointees—shall be ex officio members of the Federal Reserve Board.

The Board, as originally constituted, has two ex officio members, the Secretary of the Treasury and the Comptroller of the Currency. These are two too many, for the reasons that

both are political appointees and both sit on the Board in addition to performing other duties. It is the belief of the Board that its members from time to time should visit Federal Reserve Banks and keep in personal touch with the country generally, yet with the ex officio members too busily engaged to attend meetings of the Board frequently, the regular members must remain almost constantly at Washington to preserve a quorum.

IMPORTANCE OF THE REGIONAL STRUCTURE

A fourth fundamental of the Federal Reserve System is the regional organization constituted by its twelve Federal Reserve Banks, which have numerous branches. Supporters of a single central bank always are prepared to urge this change when an opportunity presents. The experience of the System is that the regional principle is sound. The conclusion is reached from close study of the operation of the System since its inception, that a single bank could not stand. It will be recalled that President Wilson, in advocating the regional system, pointed out that distribution of the banks would "fructify the lean regions." It has had this effect and the western Federal Reserve Banks are making progress in bringing assistance to the vastly undercapitalized Western States by furnishing a convenient and ready channel for the introduction of eastern capital. But of equal importance is the consideration that the regional banks draw from the lean regions as well as others, a tangible support in return for the assistance given.

The Federal Reserve System is an empire whose constituent parts rally to the general defense when any arm is attacked. Did the United States have a central bank now, it is almost certain that enough enmity could be or-

ganized against what would appear as an ogreish concentrated money power to overturn it. But with the twelve banks scattered throughout the country, the element of local pride enters in and the realization of mutual benefit is felt. The Federal Reserve Bank is not a remote, alien and sinister influence in a distant and envied section of the nation. It stands just across the street. The New York or the Dallas Federal Reserve Bank may be attacked by some passing clamor, but the Banks at St. Louis and Cleveland are not going to permit the whole system to collapse because of the disturbance. Yet a single, central bank might very likely succumb.

This is being realized more and more, and it is not at all likely that this fundamental of the System will be changed.

ATTEMPTS TO OVERLOAD THE SYSTEM

Another manner in which the System is sought to be preyed upon is the burdening of the Federal Reserve System with extraneous duties. While these do not strike at the integrity of any single fundamental of the System, to carry their development too far would impair the entire structure through overloading. For instance, there is now pending legislation providing that the surplus earnings of the Federal Reserve Banks shall be placed in a special fund to be lent on cattle paper, on crops held in storage and for similar purposes of a financial rather than of a commercial nature. It also has been proposed that the Federal Reserve System create a foreign bank which shall have a species of monopoly of foreign exchange dealings. Other tasks have been proposed and urged for the Federal Reserve Banks which are indeed closely allied to banking, but which might, if permitted to develop unbridled, confuse and overload the System.

There is the unceasing effort to main-

tain by legislation the integrity and special privileges of State banks after they enter the System—a sort of marriage vow with a reservation. It would appear to be the part of wisdom to add as few restrictions and new duties as possible to a system which already is of towering proportions, to the end that it may function smoothly, unencumbered and unembarrassed.

TWO NEEDED IMPROVEMENTS

The closest observers of the operation of the System have but few suggestions to make for changes in the

fundamentals. For the most part, they are content with the Act as it stands. But there are two particulars in which it is felt that strength and efficiency could be added:

First, remove government bonds as eligible collateral for commercial paper acceptable for rediscount at Federal Reserve Banks, and thereby destroy a wide avenue for rapid inflation.

Second, reorganize the Federal Reserve Board so as to divorce it from other government activities and relieve it of the embarrassment of ex officio membership.

Economic Factors in the Location of Manufacturing Industries

By MALCOLM KEIR

Professor of Economics, Dartmouth College

TO overcome restrictions limiting enterprises to special localities has been one of the unconscious purposes behind industrial progress. A study of the factors that hitherto have bound particular industries to favored places shows that technical or social advances have loosened the grip of such factors. These advances foreshadow greater freedom of choice in the location of future manufacturing projects. The bonds that have hobbled manufacturing business are raw materials, labor, market, power or fuel, capital and transportation. Not all of these have restricted all industries, nor are the undertakings actually affected under equal subservience to each factor, but taken together the considerations mentioned constitute the principal dominants in factory location. Yet with the exception of the market and transportation, each shows a waning power over the placement of a factory.

THE PART PLAYED BY RAW MATERIALS IN FACTORY LOCATION

Raw materials have not dictated factory location to the extent that they necessarily determine mining—where there is no coal there are no tipples, and concentrators are useless where copper ore does not exist—for even the first factories both in Manchester, England, and Pawtucket, R. I., were leagues distant from the cotton fields of the West Indies, the Carolinas and Georgia. Nevertheless, bulky, cheap, fragile or perishable raw materials have usually limited factories using them to the neighborhood where the materials exist. In fact, in the case of bulky cotton cited above, the works that today are remote from our South specialize on cloth that has more value in skilled labor than in raw material while heavy cheap stuffs whose chief value lies in the contained cotton are made where cotton grows.

Thus Manchester produces batiste, New Bedford, the highest grade sheeting or muslin, while Greenville, S. C., turns out weighty duck. Similarly, heavy clay is baked into bricks where the clay lies, and heavy wood is fashioned into clothespins, coat hangers, rolling pins and mixing bowls within the shade of the forest itself. The fragility of coke prevents its shipment for distances beyond six hundred miles because the bumps and jars of railway travel reduce valuable lumps of coke to useless dust that blows away. Since the highest known grades of coking coals are found at Connellsville, Pennsylvania, near Pittsburgh, the latter city has had a unique advantage that largely explains its supremacy in the manufacture of iron and steel; for in making pig iron a pound and a half of coke must be added to every pound of ore. In like manner, hemlock and oak bark are too fragile to withstand long railway hauls so that tanneries in the past utilizing the bark as the source of tannic acid were forced to establish themselves where the trees grew and, when one supply was cut off, to move to a virgin stock. Massachusetts, Pennsylvania and Tennessee have each in turn supported a forest tanning industry.

Again, perishable raw materials must be turned into durable products near the origin of the materials. Maine farmers in northern Aroostook County were once famed for changing perishable potatoes into lasting starch; this year when prices of potatoes dropped from three dollars a barrel to forty cents, the northern farmers were saved by the starch factories, whereas their friends in the southern part of the county dumped 45,000 barrels of potatoes into their fields for fertilizer. Campbell's Camden soup factory saves New Jersey tomatoes from spoiling in the field or in transit. Cotton gins are

on the edge of plantations because seed cotton ferments in short order; and for like reason the seed mill abuts the gin.

CONCENTRATION AND SUBSTITUTION OF MATERIALS LOOSEN THE SHACKLES OF LOCATION

Since raw materials have imposed these limits upon certain types of manufacture, the conditions challenged the men engaged in the industries to devise means of throwing off the constraints. Concentration from a lower to a higher percentage of valuable content has permitted the long distance shipment of some raw materials that otherwise would have been refined at the source. Copper smelters of Butte concentrate ingots of copper that may then be carried to Newark, N. J., for final refinement. Minnesota iron ore is not shipped "as it runs" but is first graded upward and then sent to blast furnaces at Duluth, Cleveland, Erie, Conneaut, Pittsburgh and Buffalo. In the tanning industry, freedom from the necessity of a forest location was long since attained by leeching the tannin from the bark and shipping the resultant "extracts" to convenient sources of hides or markets. The canneries have not yet been loosened from the fields or orchards but the difficulty is under study. Cold storage has lengthened the distance and time from bush to can, and now the enthusiasm over vitamins promises a new release. Extract vitamins from fruits or vegetables and decay is arrested. If this be true, the limitation upon cannery location is removed. If none of the manipulations of raw materials suggested proves feasible in a given case, there is always the possibility of release by substitution.

Pittsburgh's virtual monopoly of the best coke has been defied by the invention of ovens that take ordinary grades of coal and, by saving the by-products, turn out a good quality coke at a mod-

erate price. Recent reports of the Federal Trade Commission indicate that if it were not for the common ownership of Pittsburgh mills and those at Duluth, Birmingham and elsewhere, Pittsburgh could not hold its own in competition. As it is, the higher Pittsburgh costs are set as the base levels in determining prices for the nation regardless of cheaper costs in more accessible localities.

Substitution of raw materials has taken place in the furniture industry, particularly the branches dealing with office, kitchen and hospital furniture. Wood is replaced with steel. The greater accessibility of steel, of course, is only a partial reason for the change; high price of wood due to declining supply must be taken into account. The paper business for centuries held in leash to large cities, especially ports, so as to be supplied with the all essential linen rags, found greater freedom fifty years ago when wood pulp was substituted for rags. Paper mills that had been localized near Philadelphia were scattered along the edge of the forests from Maine to Minnesota. So far as raw materials are concerned, therefore, industry by concentration or substitution is apparently passing out of bondage in regard to location of plants. An analogous story may be told in respect to labor.

SKILLED LABOR AS A FACTOR IN THE LOCALIZATION OF INDUSTRY

Nearly every industry in its youth has been subservient to skilled labor, and many of our important manufacturing enterprises are still in thrall to labor. Sanitary pottery is entirely the work of skilled hands with no intervention of machinery. Glass blowing is a matter of lungs, legs, and fingers. Shoe manufacture was a hand trade until after the Civil War, and although every operation may now be done by

machines, the latter require skilled labor in their operation. This labor is so well organized that it virtually controls the shoe business. Wherever skilled labor is an important item of production, the home of the labor determines the location of the industry. Ties of sentiment and property hold the skilled labor together in one place so that employers must go where the labor lodges.

The result is a high degree of localization of industry, one of the most outstanding features of American manufacturing; indeed the names of many American towns are nearly always associated with the principal product of the place—an industrial hyphen. As a basis for such an assertion one need but mention Brockton or Lynn-shoes, Waterbury-brass, New York-clothing, Troy-collars, Bridgeport-corsets, New Bedford-cotton, Gloversville-gloves, Philadelphia-hats, Providence-jewelry, Akron-rubber, Patterson-silk and Chicago-packing houses. The essential common factor in all these localized industries is need and dependence upon skilled labor.

THE LESSENING SIGNIFICANCE OF SKILLED LABOR AS A DETERMINANT OF FACTORY LOCATION

But labor's skill is an ephemeral prize. Machinery, sub-division of labor, multiplication of industries or trades blot out trade distinctions and tend to reduce all labor first to semi-skilled but eventually to the unskilled basis. Indeed the mere existence of skilled labor's power over industry is a challenge to employers to find a way to offset this authority. Transference of skill to perfected machines is one step in the desired direction. Simplification of jobs together with specialization upon the simplified tasks continues the course.

Of great assistance to employers in

these matters is scientific management with its motion, time and fatigue studies, together with functionalization. A thorough installation of scientific management leaves little of skill monopoly in the hands of labor. Except as upspringing new industries, the power of organized labor, and the resistance of inertia delay the movement, the trend is away from skilled labor and toward one universal class of unskilled. The significant feature for our purposes of such a change is that unskilled labor has no pride of locality, no roots running deeply and intertwined into the community that an employer is bound to respect. Whereas skilled labor, without change of residence, draws the factory to itself, the unskilled must seek the factory wherever the owners choose to put it.

Consequently, localization of industry based upon skilled labor is likely to be of continuously less significance. Electrical porcelain potteries differ from sanitary potteries in that the former use machines largely, and employ semi-skilled labor. While sanitary ware manufacture is localized at Trenton, N. J., or East Liverpool, Ohio, electrical porcelain is manufactured in a score of scattered places. Glass manufacture, long under the dominion of labor, has substituted compressed air for lungs, molds for skilled fingers, and travelling belts for logs. Hence glass blowers are losing their aristocratic bearing, and factories may seek locations regardless of labor domination. The trade was once centered in New Jersey, but today it is practiced in western Pennsylvania, Ohio, West Virginia and Indiana.

A few shoe manufacturers have started making footwear upon the same principles of standardization as Ford cars. If the experiment succeeds the way is opened to escape from the

restrictions upon location due to labor; for standardization of leather, lasts, methods and internal factory transportation removes the insistent need for skill. Brass casting, long an hereditary secret among selected casters in Connecticut, is now under the control of the chemical and physical laboratory. Significantly, it is Buffalo, not Waterbury, that blazes the way with the new scientific methods. Collars in Troy may be made by machines; the principal reason why so many of them are not is the influence of changing styles upon standardization. In short, the attack has been carried into every localized stronghold, and has been so successful that the phenomenon of localized industries due to skilled labor is yearly harder to demonstrate and promises to disappear. If it does, the hold of skilled labor upon the location of a factory is broken. Questions of labor quantity, not quality, will then be raised when a factory location is considered. Since the sands of Lake Michigan can be turned into a Gary, and the mountain fastnesses of Mingo County into a Matteawan, the temporary absence of unskilled labor from a particular location is not a vital matter and may be remedied.

NEARNESS TO MARKET CONTINUES TO CONTROL THE LOCATION OF MANUFACTURING PLANTS

The third great factor that has most often fastened factories to specified localities has been the need to be near markets. Of course, with this as with the other factors mentioned, some industries are more vitally concerned than others. Products that are easily broken, bulky, or are needed for quick convenience are most under the domination of market. For example, pottery is hard to ship without breakage and consequently the potteries find their best location near the places of largest

sale. For this reason Ohio leads the nation in making drain tile, a product in great demand for the farms of Ohio, Indiana, Illinois and Iowa. Since agricultural tools ordinarily are not only bulky but also must be repaired without delay, they are manufactured as near the farm as is convenient. Corn belt tools are made at Chicago and Springfield, Illinois, while the wheat belt—Kansas, Nebraska, the Dakotas and Minnesota—receives its farm implements from Chicago, Moline, Rock Island or Davenport.

The manufacture of textile machinery and equipment in Worcester and Providence near the large textile centers of Massachusetts, illustrates the factor of convenience. It is a simple matter to make quick repairs and adjustments when the machine manufacturing industries are near the machine-using industries. In general it may be said that nearness to market is the most important of location considerations to the largest number of manufacturing enterprises.

Unlike the cases so far mentioned, industrial progress has not materially lessened the power exerted by the market factor. Nevertheless there have been attempts to combine large scale industry and even localized manufacture with decentralization of plants near to the final consumer. The manufacture of Ford cars is a case in point. The principal plant, of course, is at Detroit, but all the large distributing centers have assembling plants of considerable size. These plants also manufacture some small parts and do much repairing on cars already sold. This scheme admits of large scale production of the principal parts of the car at Detroit with cheaper shipment in the knock-down state to the sub-manufacturing unit, and then the assembling and final shipment to the consumer from these units.

Although the Ford car is spectacular in this device, it is by no means unique. Similar schemes are practised in many other trades. Montgomery Ward & Company, the large mail-order house, in addition to its principal warehouse at Chicago, has branch houses at St. Paul; Portland, Oregon; Fort Worth, Texas, and Kansas City, Missouri. Furthermore, the large shoe manufacturing concerns of eastern Massachusetts have branch plants in St. Louis and Cincinnati. Even with a new type of transportation or with the changes indicated below in regard to transportation, the factor of nearness to market is likely to have an enduring influence upon the location of manufacturing plants, for the factory nearest to the market will always have an advantage over one more remote.

POWER AND FUEL AS INDUSTRIAL SITE CONTROLS

Among other matters that have had a bearing upon where a factory should be built have been the factors of power and fuel. The earliest factories used so little power and the machines were so small and light that small streams could be harnessed and made to render service. The parts of the United States that were then settled were provided everywhere (except in the extreme Southern Atlantic Coastal Plain) with small power sites. But after the invention of the power loom and the erection of the first complete factory at Waltham in 1814, the situation changed. Large water powers from that time on became increasingly important. Such sites were limited in number. Therefore manufacturing tended to collect about the available sites. Instances are Lowell, Lawrence, Holyoke, Paterson, Woonsocket and Norwich. These sites were open to the usual objection to water power, namely, that it is confined to the power available at a par-

ticular spot and has definite limits to expansion.

Increasing demand for products, and hence search for power in order to take care of the necessary increase in manufacturing facilities, eventually led manufacturers to adopt steam in the place of water power. Although the steam engine was improved and its manufacture cheapened, nevertheless at the time that it began to supersede water power, the latter was by far the cheaper source of power, costing only about a fourth as much per horse power per year as steam. The principal reason why the steam engine came into almost universal use was the elasticity and freedom with which it might be set up. Steam really liberated manufacturers in their choice of location, for a steam engine will operate anywhere that fuel can be secured. Unless power is a very large element in the cost of production, however, the cost of coal has very little influence upon the location of a mill. If power is a small item in total costs, then this cost may be tripled or quadrupled without vitally affecting the total cost of the products manufactured.

However, even steam does not give the widest choice of location. The limitation upon the use of steam power is the securing of cheap fuel. Fuel is cheapest at points nearest to the coal fields and expensive in proportion to the distance from the mines. There is a final limit to the distance which coal can be carried economically for manufactures. This limitation partly explains the absence of manufacturing from such places as North and South Dakota, Kansas and western Texas.

Another source of power and fuel is crude oil or natural gas. In regard to crude oil, the story is much the same as in respect to coal. Natural gas is more limited in its range from the source of supply than either coal or crude oil.

Although West Virginia gas has been utilized as far distant as the glass works of Muncie, Indiana, necessity of transporting the gas through pipes, limits in general the distance that it can be carried for economic use.

ELECTRICITY CURTAILING THE POWER FACTOR AS A DETERMINANT OF INDUSTRIAL SITES

The factor which tends to liberate manufacturers from the constraint of any of the power or fuel sources mentioned is the transference of energy into the form of electricity. Power developed from the Mississippi operates mills in all the little towns of western Illinois within the radius of Peoria and Springfield, while Connecticut River power harnessed below Brattleboro operates machinery in Providence. On the Pacific Coast hydro-electric power has been carried 500 miles before it was used. Similar proposals are being made to develop electricity from coal at the mine. If the various sources of electrical energy, either from water or coal, in the East were joined in one super-power system, then there would be no region east of the Alleghanies that could not use electrical power in any amounts necessary.

A similar development from the fuels and the water powers of the Middle West would give ample power to the whole region. By turning the low grade fuels found in North and South Dakota and Texas (lignite) into producer gas and then changing the energy into electricity, these regions also could be supplied with the essential that they have so far lacked. The New Salem field of North Dakota alone is estimated to contain two billion tons of lignite. It has a tested heat value of 6700 B. T. U. Translated into dollars, this means that at \$5 a ton the prairie lignite is equal to Pittsburgh bituminous coal at \$10.20 a ton. If instead of

steam engines—the basis for the foregoing—the lignite were gasified and then made into electricity, its value would be even greater. The streams of the Rockies and the Cascades could be turned to commercial advantage in the Far West, as some of them already are. Therefore, even under the limitation of transmission of power by wire there is no region of the country that is beyond the feasible range of transmission of electrical energy.

When one indulges in prophecy and deals with the attempts to transmit electrical power by wireless, then he faces the possibility that there may eventually be no place without the service of any amount of power required. Such an industrial opportunity is far removed from the constrictions in power that first faced the manufacturers of this country and led them to erect "Lowells" and "Holyokes." So far as power is concerned, Death Valley and New York City would be equally available as factory locations.

CAPITAL, UNPROVINCIAL, THE LEAST OF THE FACTORS AFFECTING THE LOCATION OF INDUSTRIES

One other factor which sometimes has a bearing upon the location of factories is capital. There are men, the possessors of surplus funds, who will not invest them in any project that they cannot keep under their own eyes. The retired whaling captains of New Bedford, seeking investment when whaling declined, would not support projects as near by as Fall River but insisted on putting their money into "home enterprises," thus establishing New Bedford as a cotton mill city. Insofar as such individuals exist, they tend to keep manufacturing local wherever the enterprise depends upon local funds.

But for the most part, capital is not provincial; Beacon Street's timid old

maids furnished part of the capital for the roaring copper towns of Butte and Anaconda. Furthermore, capital is not national; in itself it has no patriotism. The Pennsylvania railroad is owned in part by the widows and orphans of Scotland, while on the contrary, 73 per cent of the Canadian Pacific railroad is owned by people in the United States and only 17 per cent by Canadians or British. Mexican oil is shared in its exploitation by American and British interests, while the World War focused attention on the extent of German ownership of French, British and American industries. Wherever there is a reasonable assurance of gain and a minimum risk, there capital can be secured. Consequently, a man desiring to set up a factory would not ordinarily have to depend upon local capital to support his project. If it gave reasonable assurance of success, capital, even from distant points, could be secured for financing the enterprise. So we can set down capital as the least of the factors that have a bearing upon the location of industry.

HOW RAILROAD RATES FIXED INDUSTRIAL CENTERS

Interwoven with all of the factors so far considered is the vital matter of transportation. Lack of transportation thoroughly decentralizes industry. The earliest stages of manufacturing in this country when all industry was of the local type exemplified by saw mills and grist mills, well illustrate how absence of carriage facilities constricts business. The progress of railroad building from 1828 to 1900 was a most essential element in determining manufacturing activities in the United States. Railroad policy was a vital influence in the growth and preëminence of eastern manufacturing.

In order to bind the whole nation together and to encourage the use of

railroads in thinly settled regions, it was a necessary part of railroad strategy to fix freight rates at the lowest possible point. As a result, between 1828 and 1916 railroad freight rates were successively revised downward. Furthermore, the rates were arranged to give precedence to the long haul over the short haul. It was to the interest of the railroads, since they made their profits on the long rather than the short hauls, to keep manufacturing localized in the East where it first developed and to prevent wide decentralization of manufacturing in the western agricultural regions.

Rates were also adjusted so as to give undue favoritism to the large Eastern seaboard cities. This led to the building of great centers of population in the East specializing in manufacture and the wide dispersal of agriculture in the Middle and Far West. The result was a long haul for manufactured articles westward and a long haul of agricultural products eastward. Some of the farm output was necessary to feed congested areas in the East, but in addition large amounts of it were raw materials for the factories of the East. It is a little-appreciated fact that factories secure three-fourths of their raw materials from farms, and that half of the farm products go to factories. The fixing of rates as indicated was a part of a necessary stage in the economic development of the United States and criticism cannot justly be levelled against it. Without such an arrangement it is difficult to see how a continent so quickly could have become a nation.

PRESENT TENDENCIES POINT TO DECENTRALIZATION

But the period when these things were necessary has passed. The country is now settled from coast to coast. There is no need for keeping the indus-

trial development of one region artificially stimulated and another region artificially retarded. For many other reasons not germane to this subject, the whole railway industry is under intensive scrutiny and faces epochal changes. The matter of the long haul and the short haul is likely to be changed in the general reorganization of the railway system, which is imminent. It seems likely that the railroads may soon be under the control of the government again and operated for service rather than profit. Among other reforms that seem probable is the adjustment of rates on the basis of service rendered. This means that rates will probably be placed upon a mileage charge plus a charge for terminal facilities.

If this occurs there will be a rapid decentralization of manufacturing. Then localization of industry no longer will be profitable. Nearness to raw materials and especially nearness to market will be enhanced as factors to be considered in locating a factory. The great centers of population in the East will be vitally affected. Without artificial support from the railroads the centers could not continue their industrial supremacy. Insofar as the eastern cities turn their attention to the manufacture of articles using imported raw material or manufactured articles for export, their manufacturing plants could be retained and even increased. The commodities needed by the people living in the East also could be manufactured in that region but the vast consuming market in the Middle West would be removed from the dominance of eastern manufacturers and supplied by factories in the Middle West itself.

In fact, the Middle West is likely to witness a rapid increase in its industrial activities. It is not without meaning that the state of Michigan led

the nation between 1910 and 1920 in increase of population. All of the natural factors favoring manufacturing are to be found in the Middle West. Raw materials from the farm and from the mines are easily available, power and fuel are at hand, living is cheap because of the prevalence of farms, and labor is available, especially that of women.

HOW THE WESTWARD MOVEMENT FAVORS THE WORKER

On the human side it is far more desirable to have a large number of relatively small factories scattered through the small cities and towns of the Middle West than it is to have great plants erected in the large cities of the East. The life of an artisan in a large city is often figuratively expressed as machine slavery, and the facts of the life—tenements, scorching grassless pavements, noise, violence, disciplined attendance at work, ceaseless fear of the arbitrary life and death decisions of employers—do not give the lie to the name applied. The vaunted advantage of the city in supplying amusement is usually limited to pipe smoking of evenings, coatless on the airless front steps. Of course there are movies too—but every hamlet has its movies.

On the other hand, workers in a Mid-West factory in a moderate sized town escape tenements for cottages, combine gardening with shop craft, sleep in quiet, and, because the "boss" and his men have many intimate social contacts outside of working hours, the rigor of discipline is lacking during the work day. Furthermore, the artisans of the smaller places and some of the large are mostly American born. Kansas City holds first rank among our cities by her verified claim that 85 per cent of her citizens are born in this country. From the human viewpoint

therefore, a shifting of factories to the Middle West is advantageous.

NEW FACTORS IN TRANSPORTATION

The new factor in transportation, the automobile truck, foreshadows a quickening of the decentralization of industry. The truck has already demonstrated its ability to compete with railroads for distances of fifty miles. If the railroad is forced to concentrate its efforts on short haul business it will come in conflict with the truck. Rates ought to reflect this competition; if they do, then more than ever will it be advantageous to put a factory within short reach of its raw materials and especially its market.

As regards the airship, the latest transportation agent, speculation as to its development is dangerous in the face of the achievement of the automobile. Even now planes flying 120 miles an hour have reached an engine efficiency of twenty miles to the gallon of gasoline. No automobiles at that speed have ever attained so high a mileage and few cars at any speed have reached it. Nevertheless, it appears that the air craft for some time will be limited to carrying small valuable packages, or those in which speed of delivery is of importance. If they do offer serious competition to the railroad or truck, they will turn the tide of industrial decentralization backwards and permit centralization because they mitigate consideration of distance or time. But one fact stands out—however efficient and cheap air transport becomes—it will always remain true that the producer nearest his market has an advantage over his competitors. This truth will in the future as now exert a powerful leverage toward decentralization.

In general the ordinary considerations that have limited the choice of factory location—raw materials, labor,

market, power or fuel, capital and transportation—have been shown to have lessening force as industrial progress has been made. To this generalization two partial exceptions have been made, —one in respect to market and the other as to raw materials. Under the new freedom as regards most of the

factors of location, but limited by the changes in transportation, we have indicated the likelihood of the important rôle to be played by the Middle West. The selection of a location for a factory should not be made until serious thought has been given to reasoning of this character.

The Railroad Predicament: How It Arose and How to Get Out of It

By T. W. VAN METRE

Associate Professor of Transportation, Columbia University

WHEN the armistice was signed in November, 1918, the people of the United States turned their attention at once to the many problems of "reconstruction" which were the legacy of war. Among these problems none presented more serious difficulties than the railroad question. For several years before the government had assumed charge of the railroads, the nation had been vexed with a "railroad problem." A year of government operation had served to add to former complications. There was universal agreement that radical action of some kind was necessary, but unhappily there was a bewildering confusion of counsel as to what this action should be. There was no resolute leadership, and there was no solidarity of opinion.

The many suggested "plans" for dealing with the railroad situation fell into three general classes:

1. Government ownership. The leading advocates of this policy centered their energies upon the promotion of the Plumb plan.

2. The continuation of government operation for a longer period of time than had been originally contemplated. This plan was proposed by Mr. McAdoo, the first Director General of Railroads, and approved by his successor, Mr. Hines. Mr. McAdoo felt that government operation should be given a further test for at least five years, during which time a permanent railroad policy could be worked out in an orderly and scientific manner.

3. The speedy resumption of private control, with the enactment of such

legislation as would remove the most glaring defects of the former railroad policy. Railroad managers, the owners of railroad securities, and the great majority of the public indorsed this general program, though there was a wide divergence of opinion as to what should be the character of the new Federal railroad legislation.

It was the last mentioned policy which was adopted. Congress was disposed to give little heed to any suggestion of government ownership, and was also averse to a continuation of Federal control for a period longer than was necessary for the enactment of a railroad law. President Wilson had no constructive suggestion to offer. He too was in favor of the speedy resumption of private control, but he chose to leave to Congress the task of formulating a new national railroad policy. After a year of somewhat perfunctory investigation and wrangling over details, Congress finally passed the Transportation Act, which became a law on February 28, 1920, two days before the termination of Federal control.

THE PROMISE AND RESULTS OF THE TRANSPORTATION ACT

Railroad managers assumed charge of their various properties with a feeling of optimism. A guarantee of the standard return for a period of six months gave them assurance of time to reorganize their somewhat scattered forces without fear of financial trouble. Before the guaranty period expired the Interstate Commerce Commission, in compliance with the terms of the Trans-

portation Act, ordered a large increase in rates and fares, an increase which, if the volume of traffic should be maintained, would give to the carriers the "fair return" to which the law declared them to be entitled.

What were the results? The promise of a speedy restoration of railroad prosperity was not fulfilled. The business depression which began in 1920 was soon reflected in a sharp decline of railroad traffic, a decline which the increase in rates did not fail to stimulate. The railroad managers, finding their gross income much smaller than they had hoped for, with little prospect of early improvement, discovered that the working agreements and wage schedules negotiated during the time of Federal control were resulting in excessive and unfair returns to labor. They accordingly precipitated a controversy with their employees, in a manner so undiplomatic and at such variance with the express terms of the law that they aroused the bitter resentment of their workmen and earned for themselves the condemnation of a large group of railroad security holders. Agricultural, lumbering and manufacturing interests in many sections of the country, confronted with a downward movement of prices, began a chorus of protest against high railroad freight rates. Railroad credit, none too strong for many years, became almost demoralized. The railroad Labor Board, the Interstate Commerce Commission, President Harding and his Cabinet, are now all at work trying to solve the railroad problem again. The Senate is holding another investigation of the railroads to find out what the railroad problem really is, the only result being that it is turning over soil that has been plowed and replowed so often in the past ten years that a crop has never had a chance to grow. The public is fed

with bulletins and press dispatches most of which consist of a mass of misleading propaganda from prejudiced witnesses who have recited their pieces so often that they are almost at the point of believing them to be true.

In surveying the present situation one feels inclined to wonder if Mr. McAdoo's suggestion that the period of Federal control be extended for at least five years was not worthy of more consideration than it received. His plan, if adopted, would at least have had the virtue of making possible the clear establishment of responsibility for the events of the reconstruction period. It is not unlikely that many weary railroad managers would gladly be relieved of the burdens which their haste for a resumption of private operation has so unexpectedly brought to them. But whether the choice of policy was wise or not, the choice was made, and we must abide by it. The problem of what to do next is the pressing question, and there is little comfort or profit in vague speculation as to what might have been.

IMMEDIATE FINANCIAL AID FOR RAILROADS A STEP TOWARD BUSINESS REVIVAL

The railroad depression has existed so long and seems to have gone so steadily from bad to worse, that one is justified in asking whether there is ever going to be a marked improvement of a permanent character. Promise has succeeded promise, and each has been devoid of fulfillment. With the general economic situation such as it is, it is of the highest importance that whatever steps can be taken to restore the roads even temporarily to a semblance of prosperity should be taken without delay. While the railroad situation is not responsible for the general business depression, it is unquestionably a contributing factor of

no little significance. A partial restoration of the railroads to financial stability would do much toward stimulating activity in other fields of business enterprise. Something can be done perhaps to repair the fortunes of the railroads, irrespective of their relation to conditions throughout the business world.

UNBUSINESSLIKE POLICY OF UNITED STATES RAILROAD ADMINISTRATION CHIEFLY RESPONSIBLE FOR PLIGHT OF RAILROADS

The present financial plight of the railroads is due, more than to any other single cause, to the shortsighted policy pursued by the United States Railroad Administration when it conducted the railroad business at a loss. During the entire war period, while other business establishments in the United States, by increasing the margin between expenses of production and prices, were piling up surpluses to tide them over the inevitable period of reaction, Mr. McAdoo obligingly kept railroad rates at a level which produced revenue barely sufficient to meet the actual expenses of operation, and turned to the Federal Treasury for funds to meet the deficit occasioned by the necessity of paying rentals for the use of railroad properties. It does not appear that the government was unduly extravagant in operating the railroads. It was forced to pay higher prices for supplies and higher wages to workmen, but costs in the railroad business did not advance any more rapidly than in other fields of industry. As a matter of fact, when the period of Federal control ended, the wages of railroad labor were considerably below the level of wages of labor of a similar character in other industries, a condition which the Railroad Labor Board recognized in reaching its first important decision. Where the Railroad Administration

failed, was in refusing to advance railroad charges at a rate commensurate with the rate of increase of commodity prices and wages. A single increase of twenty-five per cent was Mr. McAdoo's only notable change in freight rates during a period in which commodity prices and wages advanced approximately one hundred per cent. Had he pursued a sound business policy he would have exacted charges which would not only have served to meet all costs of operation, but which would have provided a surplus to meet any possible future claims for under-maintenance and to create a fund which in fairness the government could now turn over to the railroads to carry them through the period of depression.

The shortsighted financial policy of the Railroad Administration had certain unfavorable results which were perhaps of more significance than the deficit. When the railroads were turned back to their owners, the small margin of net earnings made necessary a large increase of rates and fares, which was promptly granted by the Interstate Commerce Commission. This increase came at a most unfortunate time, just when the prices of nearly all commodities were rapidly falling. While the advance of freight rates during a time of falling prices was probably not the sole cause of the large reduction of freight traffic, it certainly did not have the effect of encouraging greater shipments. The worst effect of the increase, coming when it did, was in its psychological aspects. It placed the railroad companies in a bad light with their employes and with shippers. No farmer who has just seen his wheat drop from three dollars to a dollar and a half a bushel accepts a forty-five per cent increase in freight rates with an air of cheerful equanimity. A drive for a reduction of wages loses some of its

effectiveness when it is staged immediately after a substantial advance of prices. What manufacturer would be so foolhardy as to advance the price of his product thirty per cent and the next month post a notice to his workmen that their wages would be cut twenty-five per cent and the working-day extended from eight to ten hours? The fact that the current of railroad finance was permitted to run almost directly counter to the current of finance in other kinds of business placed the carriers in an extremely awkward position.

Had the Railroad Administration exercised good judgment the carriers would have been in a position in August, 1920, to reduce rates instead of advancing them. Such action would have had a stimulating effect upon business and would have been to the advantage of the carriers financially. The campaign for a reduction of railroad wages would at least have had a background of greater plausibility. And the surplus which the government might have accumulated could have been used to prevent extreme financial embarrassment during the time of readjustment.

THE FEDERAL GOVERNMENT SHOULD MAKE RESTITUTION

Since the temporary insolvency of nearly all the railroads of the country is due largely to the unwise policy followed during the period of government operation, it seems that the only way out is for the government to make amends. It is probable that railroad bankruptcy on a large scale can be avoided only by government subvention of some kind. The government should give to the carriers, either as a subsidy or as a long time loan without interest, a sum equivalent, as nearly as possible, to the surplus which the Railroad Administration might have

created out of earnings had adequate rates been established. A great many rates should be revised downward to permit traffic to move. Wages are being reduced and will probably have to be reduced still further. Net earnings will have to remain small throughout the period of readjustment, but with adequate government aid the carriers will be fortified against bankruptcy.

FINANCIAL IMPROVEMENT NOT ENOUGH —BETTER MANAGEMENT NEEDED

It is not, however, the question of immediate reestablishment of the financial strength of the railroads that should command the major share of attention. It has been apparent for a number of years that there is something fundamentally wrong with the great railroad system of the United States. It needs some overhauling. It seems to be suffering from a progressive decay, and little has been done to determine the cause. We have now succeeded in overcoming some of the vices which have so long afflicted the suffering railroads. Dual regulation by State and Federal authority has been checked; the Interstate Commerce Commission has received power to control railroad capitalization; there is a new commission to deal with labor controversies, and a long desired rule of rate making has been written into the statutes. When economic conditions return to normal there is a faintly hopeful expectation that the railroads will enter upon a life of renewed vigor. But will they do so? With these beneficial changes the situation should be somewhat better than it has been for several years past. But it will be only a question of time until the old round of complaint from management, labor, and shippers will begin again.

We shall not obtain substantial improvement in railroad transportation

until we have a few railroad managers who are big enough and bold enough to bear witness that the present railroad system is in many respects hopelessly antiquated; who, realizing that there has not been a single change of importance in the railroad business for a quarter of a century to meet the remarkable changes in American industry and commerce, will engage in a crusade to bring the railroad business up to date.

Apparently the only ideal that has ever actuated a railroad manager or financier in the United States is the ideal of size. Railroad development has been measured by the number of miles of track laid each year, no matter where they were laid or for what purpose. The ambition of the average railroad executive is to have the biggest freight car, the biggest locomotive, the biggest passenger terminal, or the biggest something else that is to be found in the world. Railroad management has been hypnotized by the processes of large scale production. Before 1900, when railroad traffic throughout the United States consisted chiefly of coal, grain, ore, lumber and other cheap bulky articles, there was ample justification for the development of a transportation mechanism intended primarily to carry huge quantities of bulk freight cheaply and expeditiously. Unquestionably, the railroad managers of America have led the world in the mass production of transportation.

ADJUSTMENT OF TRANSPORTATION MECHANISM TO NATURE OF TRAFFIC

It is a significant fact that the eastern railroads have been those which in the past twenty years have had the greatest difficulty in making both ends meet. For a long time the eastern portion of the United States has been undergoing a process of industrialization. There has been a remarkable

increase in the demand for transportation in retail quantities instead of wholesale. It is time to inquire into the economies of using the same transportation mechanism to carry innumerable small shipments of package freight that is used to carry bulk shipments of coal, grain and ore. Why does it cost so much more to carry freight on the railroads of the industrial sections of New England than it does on the railroads west of the Mississippi River? May it not be partly due to the fact that the western roads are using a machine specially designed for the kind of traffic which they carry and the New England roads are using the same kind of machine to carry a different kind of traffic?

The only reaction which railroad managers have had toward successful motor truck competition in densely settled eastern districts has been in the nature of a pious objection to an unwarranted invasion of a vested right to conduct a business in an inefficient and uneconomical manner. It may have occurred to some of them that startling economies might be obtained by the coördination of railroads and motor trucks, with a pick-up and delivery service, but if so they have kept still about it.

A favorite gesture of American railroad financiers in past discussions of the capitalization of their roads has been to point to the comparatively enormous capitalization of English railroads. Have they ever stopped to consider that these heavily capitalized English roads, in the period before the war, with a relatively small tonnage of freight, with passenger fares which were considerably lower and freight rates which, in view of the service rendered, were probably no higher than in this country, were able to pay fairly good returns upon their capitalization? Transportation conditions between

Boston and New York are not greatly different from the transportation conditions over a large part of England. But the business is by no means conducted in the same manner.

THE IMPORTANCE OF COÖPERATION —JOINT USE OF TERMINALS AND POOLING

It has been pointed out over and over again that the railroad freight terminals of the United States, because of the competitive conditions under which they are operated, are a source of incalculable waste. During the troublous times of 1917, and for several years before that, when the waste of competitive terminals at large commercial centers was decried, railroad managers excused the system on the ground that coöperation was illegal because of the Sherman Act and the anti-pooling section of the Interstate Commerce Act. The Transportation Act expressly authorizes the organization of railroad pools. Has there been any notable attempt to take advantage of this law to effect a better organization of freight terminals? If anything, terminal competition has grown steadily worse during the past year. The coöperative activities inaugurated by the government have in a large part been discontinued. In Chicago, one powerful railroad corporation is endeavoring to obtain exclusive possession of important belt line facilities. In New York, the railroad financiers have shown their coöperative spirit by organizing a corporation to build a Hudson River bridge, just after the New York-New Jersey port commission recommended the construction of a great union terminal, the central feature of which was to be a tunnel under the Hudson River at about the same point where

the piers of the contemplated bridge are to be installed.

IMPROVED PERSONNEL POLICIES IN ORDER

Railroad management in the United States is suffering from arrested development. During the past quarter of a century the country has moved ahead; the railroads have held back. Railroad corporations, the oldest, wealthiest and most powerful business institutions of the country, have scarcely felt the impulse to spend money on educational activities for their employees. Yet educational work has been pursued with most gratifying results by dozens of banks, insurance companies, manufacturing establishments and department stores. Not until the Railroad Labor Board ordered the abrogation of the national working agreements did the carriers discover that virtually no machinery existed through which they could conduct conferences with their working forces. The Pullman Company, apparently at a loss as to how such machinery could be created, tried to negotiate new agreements in a mass meeting. Railroad presidents claim that they want college graduates in the railroad service, but where is the college graduate who seeks railroad employment? Heads of engineering schools testify almost unanimously that their graduates no longer enter railroad service because the railroad business has become so crystallized and so bound by routine that individual merit is rarely recognized and promotion comes usually through "influence" or mere seniority.

As the railroad system exists today it is an impressive monument to its wonderful past. But, like most monuments, it is surrounded by a graveyard atmosphere.

The Recovery of the Grain Farmer

By CHARLES MOREAU HARGER

Director, Abilene National Bank, Abilene, Kansas

AS a factor in the readjustment period of the country the position of the grain farmer is of prime importance. Especially in peace time, when no artificial stimulus is given to industrial affairs, is the relation between the nation's business and its producers of raw materials intimate. This is not only because foodstuff production comes close to the interests of the consuming public, but also because it gives rise to a vast demand. The most powerful source of buying power in the American market lies in the operators of some seven million farms. Their demand is reflected in the industrial and financial worlds and indirectly touches workers of every class.

DISTORTED PICTURES OF THE FARMER'S POSITION

No very clear picture of the actual position of the producer of foodstuffs, especially of the farmer of the interior states which furnish the bulk of our grain output, is visualized by the public. Between exuberant laudation by the booster and depressing description of hardships in meeting costs and living expenses by some political leaders, a confused estimate naturally results.

In any consideration of the rapid deflation of prices affecting agricultural products in the past year, it is easy to assume that the American farmer has fallen from a heretofore permanent high level of prosperity. The fact is that the producer in the pre-war period earned by strenuous effort whatever he achieved. Surveys undertaken in strictly agricultural sections showed returns of less than four per cent on the investment after allowing for the ex-

penses of the farmer's family. He advanced by small percentages of profit on his labor, added to it a constant increment of value in his land and as a whole accumulated assets that were expressed in bank accounts and material possessions. Signs of progress were manifest in improvement of farms and development of communities dependent largely upon them.

War times brought a sudden expansion of income. From late in 1914 until the autumn of 1920 were the most prosperous six years in the farming history of this generation. Everything the producer had to sell was in demand at the highest prices he had ever known. He was raised to a new and higher level of prosperity.

PRODUCTION UNDER WAR CONDITIONS

The same land upon which lower-priced commodities had been raised gave a larger return; practically the same equipment was used. The one factor that increased in cost was labor, but in these days of labor-saving implements and machinery, most farmers carry on the greater part of their operations with a minimum of outside assistance. While our armies were in the training camps and field, the home labor supply was lessened but often the work went on with little embarrassment. Living expenses for the family grew, but not necessarily in the proportion to that of the salaried classes of the towns and cities. The farmer's table is largely supplied from his own vine and fig tree.

The producer, however, found many reasons for complaint. He resented the regulation of wheat prices to approximately two dollars a bushel at

market centers. He felt that high wages in government work caused him to pay too much for his employes. Nevertheless, throughout this period he was in a position to make a favorable net income.

EXPANSION OF PURCHASES

Like others, the farmer felt the impetus of abundant current resources. As one put it at a banker-farmer conference in Iowa last autumn, "We went in through the gate of extravagance and we must come out through the portals of economy."

Drive through the agricultural states of the interior. See the new houses, the silos, the barns and other equipment. Motors cars flourish by the thousand in every county, averaging one to every seven persons in a half dozen leading states. And all of them are in operation every day. The country people bought Liberty bonds to their full quota. One county out in central Kansas may serve as an example. It has 26,000 population, no large industries and no town as large as 5,000. This county boasts 5,700 motor cars; it bought \$3,500,000 of Liberty bonds and gave \$200,000 to war activities; in the autumn of 1920 it had over \$3,000,000 on deposit in twenty-two banks.

OTHER FORMS OF EXPANSION

Expansion took other forms. The farmer went into business. He not only invested in oil stocks, which proved expensive speculation, but he also placed money in coöperative stores, elevators and mills; he bought stock in the local bank; he helped promote ambitious schemes for establishing packing houses, flour mills, insurance companies, implement factories, and similar concerns which were to revolutionize industry, pay large dividends and prove a nemesis to the

alleged machinations of Wall Street. Frequently the history of these concerns ended with the disposition of stock, but whether or not they managed to survive for a time, the funds invested were so much taken from the surplus which might well have served for a rainy day.

WHEN THE DROP CAME

Then something happened. In the latter months of 1920 a great part of the price advance in the farmer's products vanished. A few figures of the prices paid in the leading Middle West market tell the story:

	Dec. 1, 1915	Highest War Price	Dec. 1, 1920
Cattle	9.25	25.25	11.00
Hogs	6.60	23.40	9.90
Wheat	1.10	3.42	1.80
Corn	.64	2.40	.75
Oats	.42	1.22	.47

By midsummer of 1921, prices of farm products were down to the level of December 1, 1915, and in instances even below, while retail prices took a much more deliberate decline. Going back to buying power this is what had happened: While in 1915 twenty bushels of corn would buy a ton of pig iron, in 1921 it took forty-five bushels of corn to buy a ton of pig iron. Something similar existed with regard to most of the commodities the producer was compelled to purchase. Stunned by the turn in events and holding his wheat from the autumn of 1920 when it could have been sold for \$2.40 to \$2.65 a bushel until the following spring when it had dropped to approximately \$1.00 a bushel—completely upsetting the advice that it would go to \$3.00 a bushel if he stood firm—the grain farmer indulged in a so-called "buyer's strike" that inflicted a paralysis on trade and gave to the manufacturer a struggle for existence.

NEW IMPETUS TO COÖPERATIVE SELLING AND CONTROL OF MARKETING

Out of his experience a new idea has come to the producer. Part of it resulted from the education of wartime with its insistence on computations to determine on what price-fixing orders should be based; part of it came from the contemplation of the "spread" between raw materials and finished product when deflation arrived. He is trying to find out just what it costs him to raise his grain, and at what price he can afford to market it with a fair profit that will cover his own labor and interest on his investment. Admittedly this is a difficult task. Conditions vary with soil, management and other influences, but the farmer is convinced that he is not securing from his output a return to which he is entitled. Based on this idea is much of the agitation in favor of coöperative grain selling, the establishment of warehouses owned by farmers and such readjustment of business methods as will give him control of marketing operations. These are now the most prominent in his thoughts, and organizations having for their object such methods are meeting with favor.

FROZEN CREDITS

The interior banker looks at conditions from another angle. He has been experiencing a period of congealed credits, largely as a result of the farmer's determination to hold his grain for higher prices and his consequent indisposition to buy commodities when prices failed to meet his expectations and hopes. Not only were the bank's ordinary resources tied up by the situation but it was common for the institution to borrow on its own account from the Federal Reserve Bank or from its correspondents, funds to enable it to care for its business. Deposits de-

clined but loans were not liquidated except under pressure—and this the banker was reluctant to exert.

LIQUIDATION UNDER WAY

The grain farmer entered on the 1921 harvest with two unfavorable factors—one material and the other psychological. He had borrowed heavily to maintain his operations while holding grain and he was convinced that he had suffered too severely in the deflation process. Out of his new crop he could hope for little more than forty per cent of last year's figures. He must prepare to seed the crop of 1922 and provide for his expenses until its garnering. One reaction was apparent: In the first weeks after harvest there was a disposition to hurry the grain to market. The recollection of the advice of the previous autumn to hold wheat was an impetus toward this action. Not only did he sell the just gathered bushels but he also cleaned his bins of year-old grain that had been stored. Whether this tendency is to be continued through the autumn and the crop is to go to market faster than normally is uncertain. It is likely that after the first pressing needs have been met more moderation will follow. However, the financial situation of the grain country has gained a positive benefit from the change in the producer's attitude and many a bank thereby will be enabled to clean up some of its rediscounts and borrowings and be placed in a position where it can care for the winter's needs of customers with less strain on its resources. For this the banks have been waiting and they will gain in courage and easier credit if the process is sufficiently extended.

All this does not, of course, mean that the grain farmer is immediately placed in a position of financial ability

He has yet the problem of obligations incurred, including a heavy real estate indebtedness growing out of land speculation at high prices. This must be worked out under conditions far dissimilar to those of the half decade past. Primarily, the solution depends on the reduction of prices for commodities he is compelled to buy to the market level of those he has to sell.

FACTORS ON WHICH THE RECOVERY OF THE GRAIN FARMER DEPEND

In some lines the purchase point has been reached, but by no means in all. The farmer generally believes that as a whole he is yet at a disadvantage and he has not wholly given up the state of mind into which he was plunged by the events of the past nine months. Until he does, he is likely to maintain an aloofness toward purchasing even the most ordinary commodities beyond absolute necessities. This reacts upon trade and makes the readjustment of retail business more difficult.

However, just as he made his larger income on the same farm that gave him his pre-war livelihood, so is that same farm still his stock in business. Generally it is improved beyond its former condition, and he has learned labor-saving methods that should inure to a lower cost of production. Three elements must enter into his recovery. One is the "portal of economy" to which the Iowa man referred; another is the adoption of scientific methods that will add to the stability of production. The third is a changed attitude toward business as a whole and an acceptance of the unity of all the nation's undertakings. Along with these go better marketing systems and such foreign trade that there may be a market for his surplus and the maintenance of his prices.

SELF-HELP AND COMPLETE RECOVERY

Not all these can be accomplished in a day or a month, or perhaps in a year. It is the opinion of students of financial affairs in the farm country that it may take more than another season before there will be such readjustment of agricultural conditions as will reestablish normal relations. The encouraging feature is that the producer has undertaken to do things for himself and is less inclined than before to depend on having things done for him either by legislation or by financial transformations.

That this attitude of self-help is essential to his progress is clear. It is possible that not all the dreams of a nation-wide grain marketing organization will come true, that coöperation in buying or selling may fail to render all the benefits promised by enthusiastic advocates. But the very fact that the grain farmer is thinking along constructive lines and that he is endeavoring so to guide his course as to place his affairs on a business basis and eliminate to the greatest degree possible the element of guesswork, gives basis for optimism.

Despite occasional gloomy presentations of the condition of farmers as a class, the individual producer seldom exhibits other than a fine courage and an implicit confidence in eventual success. He admits that he has made mistakes of judgment; he feels that he was a victim of circumstances in the process of deflation, but is convinced that he defended his position to the best of his ability—whatever may have been the effect on those dependent on his action. He has gained out of the experience faith in his own powers and he seeks to make them felt for his own good. It is possible that there may be a political movement, dominated by the agrarian element, with which the agri-

cultural states will have to reckon, but this depends largely on how sympathetically and intelligently business interests as a whole deal with the situation.

THE FARMER IS NOT BANKRUPT BUT IS BETTER EQUIPPED THAN A YEAR AGO

The intrinsic wealth of the soil is still the heritage of the grain farmer. Sun and rain will give their bounty. The constant need of foodstuffs prevails. Out of a strained financial situation has come a broader understanding between the banker and his customers, with a larger faith in one another. With the first harvest of the new era past and its effects serving to loosen the financial tension, affairs in the farm country are becoming settled. Progress may be slow but every month

brings nearer the establishment of stability. The farmer is not bankrupt nor is he going to be; he is doing his full part with the clearest vision he can command to attain a full measure of betterment. He should be given credit for earnest effort and fair intent. Basically he is better equipped today than a year ago, for he has passed through the period of readjustment and henceforth will be on sounder footing. And that, after all, is the condition that every class of business must reach before it can go forward safely. The farmer took the plunge first, and logically he should be first to see clearly his way ahead. That he has rounded the turn in his path is the belief of those most familiar with his affairs; henceforth he should steadily gain in faith and works.

The Way Out for Cotton Growers

By W. ARTHUR SHELTON

Director of Market Research, Interstate Cottonseed Crushers' Association, Washington, D. C.

THE general decline in prices during the past twelve months probably inflicted severer losses on cotton growers than on any other class of farmers or on any other economic group in the United States. From June, 1920 to June, 1921, the spot price of middling upland cotton declined from 43 cents a pound to 10 cents. The larger part of the decline occurred from August to December, after the cost of the crop had been largely incurred and before any considerable portion of it had been marketed. A large part of the expense of the crop had been met by credit instead of cash, and the proceeds of the crop have amounted to far less than the cost.

THE RESULTS OF PRICE MALADJUSTMENT

The market became so demoralized that if growers had generally attempted to sell the crop as fast as ginned, the price would have been so low as to have made it impossible to settle any considerable part of the obligations to creditors. Bank loans were restricted so generally that only a small amount of borrowing on cotton was possible. Growers met the conditions by selling somewhat less than the usual amount of cotton during the ginning period, by asking creditors for supplies to extend the term of credit, and by ceasing to purchase anything that could be dis-

pensed with. This reduction of purchases to a minimum was not voluntary. The farmer could not buy when his chief product could not be sold for a price at all commensurate with costs incurred before the price of cotton was known.

Not only did the cotton grower receive only one-third to one-fourth what he expected for the cotton and seed of the 1920 crop, but when supplies for the 1921 crop were needed, he also found that the price of many supplies had changed but slightly. It is little wonder, then, that the grower has reduced the cotton acreage to 72 per cent of that of 1920, the amount of fertilizer used to some 50 per cent and the other supplies to the lowest figure on record. The result has been that manufacturers of fertilizers have lost heavily and that agricultural implement factories are almost universally closed.

How can the maladjustment of prices be adjusted so as to give the cotton grower his usual profit and those who furnish him supplies their normal amount of business?

MORE COTTON AND COTTON PRODUCTS FOR A WORLD MARKET THE FUTURE TREND OF DEVELOPMENT

A brief review of the development of cotton growing in the United States during the past forty years seems necessary to avoid undue pessimism from the present painful situation. A broad outlook on the industrial development of the world is also an aid in disregarding the limitations of local confines. If America would be first, her leading export must be sold in the markets of the other 1,500 million people as well as in the markets of her own 100 millions. The cotton fiber and the products of cotton seed are susceptible of many uses not yet adopted. Many uses have recently been made of these commodities that will extend the

world's demand for them, and no doubt many more will soon be made. Temporarily, the only way out for the grower has seemed to be the reduction of the crop and the restriction of competition by means of a tariff; but for the decades of the future, the open sesame is through the growth of more cotton and the manufacture of cotton and cottonseed products for a large part of the world's population. Instead of an 8,400,000 bale crop, as forecast for this season, four times that amount should be grown per year within two or three decades.

The growth in cotton production in the United States during the past forty years is indicated by the percentage of change from the previous five-year period for each of the five-year periods shown below:

<i>Years</i>		<i>Per cent</i>
1881-5	plus	13.8
1886-90	"	20.5
1891-5	"	10.0
1896-1900	"	24.4
1901-5	"	7.6
1906-10	"	9.0
1911-15	"	19.1
1916-20	minus	15.7

For every quinquennial period except that of the Great War, there was a material increase in the amount of cotton produced in the United States, and it seems reasonable to suppose that that tendency will be resumed in the first five-year period after the war, notwithstanding the boll weevil and the program of cotton growing in the British Empire. For 1920 the production was well over 13,000,000 bales, while the five-year average, including 1920, was only 11,808,000 running bales. That the production will continue to increase at the rate of something like 15 per cent per quinquennial period seems likely. The annual average production was approximately 14,000,000 running bales for 1911-15,

and it should be, roughly, 16,000,000 bales for the next five years after this year. Even this allows for a loss of six years of growth, for the war, and the industrial depression following it.

INCREASED PROFITS THROUGH BETTER COTTON

The growth of more and better cotton per acre and a larger crop in the South, seems to me the way out for the future. The South is tending toward diversified farming; but the uncultivated area is still large, and the production of cotton per acre can be doubled and trebled. Mr. David R. Coker has called attention to the larger profit from better cotton by a recent statement that during the past ten years Darlington County, S. C., has produced roughly 350,000 bales of staple cotton, which has sold for an average of 10 cents a pound above the price of ordinary upland grades, and resulted in a gain of \$17,500,000 to growers of staple cotton in that county. He also states that only one per cent of the cotton marketed at Hartsville, S. C., during 1920-21 was short staple, that the growth of staple cotton has spread to adjoining counties, and that the crop of staple cotton for South Carolina in 1920 was approximately 150,000 bales.¹ It seems, therefore, that cotton growers can increase profits greatly by growing better staples of cotton. By the growth of wider varieties of cotton its uses can also be extended.

CURTAILED OUTPUT THE INEVITABLE METHOD OF TEMPORARY ADJUST- MENT

While the growth of more and better cotton is the way out for the future, the immediate problems of readjust-

ment have been met by an unprecedented reduction of 28.4 per cent in the acreage devoted to the cotton crop. It is necessary to compare the reduction of 1915 and 1892 to find figures at all comparable with the reduction in acreage in 1921. In 1915 the reduction was 14.7 per cent, and in 1892 it was 16.5 per cent. The reduction of 1921 was almost twice as large as the greatest previous reduction. The use this year of, roughly, only 50 per cent of the fertilizer consumed last year and only 45 per cent of that of 1914 is also wholly unprecedented. With favorable weather, a crop of ten million bales seems possible, but with a drought in Texas, a crop of 7,000,000 bales is also possible. By the reduction in the crop, the growers have made it possible to sell the remainder of the crop of 1920 and the new crop at higher prices than would have obtained if a larger crop had been grown. But if the scarcity of cotton during the next two years leads to a price above the cost of production, the higher price will stimulate the growth of cotton in the United States and other countries and will lead to keener competition from growers in foreign countries.

It would seem to be in keeping with the interests of the American growers if extremes could be avoided. If the present short crop should lead to 25 cent cotton, large production would follow, which would tend toward very low prices again. Nevertheless, growers have had little option in their reduction of this crop. The industrial depression lead to a reduction in mill consumption and a greater reduction in purchases by mills. Cotton was left in the hands of growers, and funds were not available for supplies for the crop of 1921. Even if they had been, the prices of supplies were not in alignment with the price of cotton. The grower neither had the money to purchase sup-

¹ Paper read by David R. Coker at World Cotton Conference at Liverpool, England, June, 1921.

plies nor could he afford to pay the prices prevailing.

The problem of readjustment of prices, rates and wages on a relative basis is perhaps the most difficult of the problems yet to be solved. Reduction in many prices and wages offer encouragement, but other prices, wages, and railway rates should be reduced in order to be in proper relation to cotton and cottonseed prices. Cotton prices are below the pre-war level, but freight rates and many wages are 100 per cent and more above the 1913 average. If freight rates are not reduced, the loss will be divided between the grower and the consumer, because railway transportation is largely monopolistic. But if wages and prices of farm supplies are not reduced to the proper relation with prices of farm products, farm products will eventually advance to a proper relation with wages and supplies. This result may be long delayed for a complete adjustment, but under the law of volitional competition it is finally inevitable. The sudden response of cotton growers to the conditions confronting them has been unprecedented, but even cotton growers are subject to economic laws.

A DECREASED WORLD SUPPLY OF COTTON WITH THE PROSPECT OF INCREASED WORLD DEMAND

An erroneous opinion concerning the world's stocks of cotton and the probable consumption during the next few years seems to be current. We have been told that the world's visible stocks of cotton were approximately 5,000,000 bales on July 31, 1920, but that they will probably be some 12 or 13 million bales on July 31, 1921.² With this statement it is interesting to compare the world's stocks of cotton as compiled by the Commercial and Financial

Chronicle. The Chronicle shows that the visible stocks of July 1, 1920, were 5,422,916 bales and of July 1, 1921, 6,523,124 bales, or 1,100,000 bales more than for a year ago. There seems to be an increase in the invisible supply in the United States of somewhat more than 2,000,000 bales, but the total increase in the world's visible and invisible stocks during the past year seems likely to be less than 3,500,000 bales instead of 7,500,000 bales as some would have us believe. The United States crop of 1921 is now estimated at 8,400,000 bales, or almost 5,000,000 bales fewer than for 1920. If to this reduction a decrease in production of 2,500,000 bales in other countries be added, the decrease in the world's production will be 7,500,000 bales from that of 1920. It would also seem that as soon as the industrial depression passes its acute stage, consumption should increase materially and should probably be equal to the pre-war normal for the calendar year 1922. Cotton spindlage was greatly increased in countries other than Europe during the war, and European mills are tending toward normal factory consumption. The world is also rather bare of textiles, and it is believed that during the next two years even Central Europe will both manufacture and consume at least a pre-war normal amount of cotton textiles. The world's industry and commerce is going forward as soon as the unprecedented industrial readjustment has run its course. It is not war destruction in Europe but the industrial depression throughout the world that is curtailing manufacturing at present.

THE WAY OUT FOR COTTON GROWERS LIES IN A STABILIZATION OF PRICES

It would seem, therefore, that the cotton growers have met their conditions in the only way they could—by

² Market Reporter, U. S. Dept. of Agriculture, Vol. 3, No. 5.

reducing the size of the cotton crop. Of course, this action will lead to gyrations in the cotton market, higher cost to consumers, waste to everybody, and the marking of time in industrial development. But such unprecedented general price declines as occurred during the past year can lead only to the cessation of industrial development. It is tragic that we have not learned to avoid such general price changes, but industrial stagnation and maladjustment inevitably follow such price declines. The cotton grower has restricted production as an emergency measure, but the permanent solution of his difficulties must come through a decline in prices of his supplies or an advance in prices of his products. A re-alignment of prices in proper relation must be accomplished. Whether farm products will finally be adjusted upward, or other prices, wages, and rates adjusted downward, depends largely on what the general price level, or the purchasing power of our monetary unit finally becomes, and this problem is now largely under the control of the central banking system.

The prices of agricultural implements and many other manufactured articles are still far above the level of prices of farm products, and especially of cotton and cotton seed. The average price of farm products, as

reported by the Bureau of Labor Statistics for June, was only 13 per cent above the 1913 average, while the price of agricultural implements is more than double what it was in 1913. Cloths and clothing for May were 81 per cent above the 1913 average, fuel, 94 per cent, building materials, 102 per cent, and furniture and other house furnishings, 162 per cent. These prices must be reduced or prices of farm products will rise. The prices of both cotton and cotton seed are below the 1913 average. But if one may estimate the effect of scarcity on prices, it would not seem that either could long remain below the pre-war level while other prices remain so far above, especially if such shortage of cotton and cotton seed does occur as is now forecast.

The cotton grower has done what he can to re-align cotton prices in proper relation to other prices. He has succeeded temporarily, but the permanent solution must come through a readjustment of all prices on some level. At present that level seems uncertain. During the period of painful readjustment, a considerable portion of which seems to be in the future, higher prices for cotton must be paid; but when other prices become adjusted, cotton will again be produced at lower prices and in whatever amounts the world demands.

The Automotive Industry

A Study of the Facts of Automobile Production and Consumption in the United States

By F. R. PLEASANTON

General Manager, Parish Manufacturing Corporation

THE development of automotive transportation has been an economic achievement without parallel in the history of industry. In twenty-odd years, since its modest inception in

the late nineties, the automotive industry has revolutionized transportation on the highways, and has won, by merit of service, a position in the life of the nation, that is second only to steel.

It has created utility and conferred benefit beyond estimate of value in social betterment and economic service. It has developed natural resources and promoted the arts of manufacture. It has introduced standardization and stimulated the science of production. It has been a powerful servant in national defense. It enjoys a degree of popularity and sound good will that has never been experienced by any other industry. Directly and indirectly, it has supported the employment of 7,250,000 workers, and has become so closely woven into the fabric of our industrial life that its welfare involves to no small extent the welfare of the nation.

Boundless enthusiasm and optimism have played leading rôles in this spectacular development. The genius, endurance and tireless activity of an army of pioneers has conceived improvements, fostered progress in the technique of design and construction, created demand, established markets and laid the foundation upon which a giant industry has been erected.

At the conclusion of six years of unparalleled expansion and prosperity, the automotive industry, in common with all national businesses, is acutely depressed. A situation has been precipitated which must inevitably have developed as the industry approached maturity, but which might have been delayed and mitigated under more favorable circumstances. Its discipline might have been rendered less drastic if applied during a period of general prosperity and normal development, but it could not have been avoided or evaded under any circumstances.

A READJUSTMENT PERIOD INEVITABLE

In all progress there must be periods for consolidation of gains, recognition of errors, recasting of policy and adjustment to controlling conditions. What-

ever the normal evolution of the automotive industry might have been under other conditions, it is undeniably confronted today, not only by a temporary impairment of the purchasing power of its market, but also, and with compelling effectiveness, by obstacles of primary magnitude created by its lack of mature consideration and restraint during a period of abnormal extravagance.

In technical performance, the service rendered by the industry has been magnificent. In merchandizing, it has very badly overshot the mark.

Its position may not be lightly disregarded, for a major portion of national wealth is involved and the stagnation of the industry retards the general recovery of all business. When and under what circumstances and to what extent may the industry anticipate relief?

Undoubtedly a bright future lies ahead of the industry; perhaps not the pot of gold at the end of the rainbow, claimed by some, but certainly an adequate reward for service rendered.

REVIVAL OF THE AUTOMOTIVE INDUSTRY DEPENDENT ON RECOGNITION OF THE LAW OF SUPPLY AND DEMAND

Resumption of general activity in the automotive industry is only partly dependent upon recovery of general business. A great task of reconstruction is involved, which depends primarily upon open-minded recognition of the existence and controlling effect of numerous complex economic factors which have been totally disregarded during the recent period of abnormal inflation, if considered at all, and, subsequently, upon the rational and courageous solution of the problems created by these underlying and limiting influences, which constitute the general situation confronting manufacturers and distributors today.

Perhaps the greatest problem in this

situation is that of self-education in primary economics. During the entire history of its development, the automotive industry has lived in a world apart, and constituted a law unto itself. A primary obstacle to its recovery will be the fact that a great majority of the personnel of the industry, particularly its distributors, cannot believe, or will not admit that the law of supply and demand has any application to control of expenditure of the funds necessary to create and maintain automotive transportation.

The industry must be made to realize that the power of self-assertion has its limitations, before appreciable recovery can be expected. It will recover and progress, not because the world owes it a living, but because, and not until, it accurately surveys its market, adjusts itself to a basis of operation that balances supply to demand and extends demand to maximum volume by creating an extension in the utility of its product. It cannot pull itself up by its bootstraps through optimistic publicity and misrepresentation, and will find it foolish and a waste of time to challenge facts.

There is so much of real worth in the service rendered by automotive transportation, that the executives of the industry will serve their own best interest by realizing the necessity for stripping it of obstacles that impede its progress. The industry itself should encourage and direct a searching examination of fundamentals, with willingness to be guided by sound diagnosis and to proceed with the least possible delay to the necessary adjustments of policy and method to the requirements of actual conditions, abandoning, if need be, the dream of world conquest, in order to minimize the accumulation of losses resulting from unbalanced production, misdirected distribution and idle excess investment.

A thorough survey will prove to be a task of no mean magnitude. It is totally beyond the scope of this discussion to attempt more than a brief analysis of average conditions affecting the industry as a whole. It is realized that the actual individual experience of any particular element of the industry will necessarily vary from general conclusions, but the grand total effect upon national economics will be determined by the average experience of the entire industry, and it is from this viewpoint that the subject is approached.

The progress of civilization has demanded automotive transportation. It has been supplied, and due recognition must be accorded to the excellence of the service rendered by the automobile, as well as to the marvelous growth of the industry. Sincere consideration for the welfare of the industry may dictate the kindest expressions of goodwill, and suggest telepathy instead of surgery, but its stability and prosperity will be determined by economic factors and not by aspiration.

ACTUAL PRODUCTION NOT AN INDEX OF THE POTENTIAL MARKET—THE LAW OF BALANCED CONSUMPTION

However much the wish may be father to the thought, it would be a serious and disastrous fallacy to conclude that the volume of production reached during 1920 is in itself an index of the extent of the potential market. It is not a criterion by which the economic stability of the industry or the utility of its products may be gauged. A close comparative examination of the rate of consumption of wealth required to create and maintain automotive transportation in relation to the amount of wealth properly available for the purpose is also needed. Even then due provision must be made for an adequate prior distribution of the total annual production of wealth among

activities primarily essential to continuity of existence, comfort and protection.

The welfare and continued existence of society is dependent upon the extent of its production and the manner of its distribution of wealth. There must be a rational balance in the consumption of wealth, as it is distributed between essential and non-essential activities, and if there is to be continued progress in civilization, there must be conserved from current production a normal accretion of wealth to increase the total capital, with which future production and the promotion of public works may be increased. In other words, society would ultimately find itself unable to continue the purchase of unlimited quantities of vehicles if the diversion of labor and capital from essential production in order to create and maintain automotive transportation should constitute such a drain upon its resources of productive energy as to restrict the production and distribution of food-stuffs, clothing, housing and other similar commodities to the point of discomfort or abnegation.

The consumption of a previously acquired surplus may permit a temporary expenditure in excess of current income, but only to the extent of the surplus accumulated. Any excess expenditure impairs capital, and a heavy drain upon capital not only retards future development, but, if carried far enough, will restrict current production as well. Carrying this thought to its extreme limit, purely as an

illustration for the purpose of this discussion, an indefinitely continued expenditure in excess of current production would result in the destruction of all capital and cause reversion to primeval standards of living and conditions of labor.

THE STANDARD FOR GAUGING THE AUTOMOTIVE INDUSTRY

It should be obvious, therefore, that the criterion by which stability must be gauged is the adequacy of the return to the capital invested in the industry afforded by such portion of the average annual production of wealth as may properly be available for the purpose, after due allowance has been made for essential expenditures and normal savings. The present inquiry is predicated upon an assumption of the accuracy of this proposition.

OUTSTANDING FACTS OF PRODUCTION AND COST

Before proceeding with an analysis of the situation, it is of interest to estimate the magnitude of the industry. In 1920 its outstanding indices were as indicated in the table below.

It is of interest to note that the expenditure for automotive transportation is 15.4 per cent of the total annual production of wealth, and represents a sum 65 per cent greater than the amount needed to finance the government and the public debt.

The actual number of vehicles produced in 1920 was 2,205,197 and plant extensions under construction at the

Wealth consumed by automotive transportation	\$8,167,850,000
Total annual production of wealth	\$53,000,000,000
Vehicles in operation	9,211,295
Mileage operated	63,000,000,000
Average cost per mile	12.96 cents
Average cost per mile by public utility	3.50 cents
Number of manufacturers	320
Number of distributors and service stations	66,416
Capital invested	\$2,126,717,377

peak of the market, completed since August, 1920, have undoubtedly added sufficient capacity to provide for the production of a total of 2,500,000 vehicles per year.

AN ANALYSIS OF COSTS IN TERMS OF FORD CARS

It may be granted that vehicles have been developed which function with every element of satisfaction, but before attempting to reach a conclusion relative to the extent of the demand for such vehicles, it is necessary to determine the least cost of operation of the most economical type produced, the amount of income which provides a margin sufficient to support this cost, the number of individuals possessing incomes equal to, or in excess of this limiting amount, the average life of such vehicles and the replacement requirements based on the assumption that every individual possessing sufficient income actually owns and operates a car. In addition to this replacement demand, allowances must be made for the use of cars by corporations, taxicab and bus lines, for the use of trucks and for the export of motor vehicles.

Excluding consideration of motorcycles, the least expensive type of vehicle in use in the United States is the Ford, or equivalent. At the 1920 level of prices, the cost per mile to operate a Ford, as it is used in agricultural districts, with maximum economy, is as follows:

Depreciation.....	1.26 cents
Tires.....	1.29 "
Gasoline.....	1.50 "
Oil.....	.15 "
Interest.....	.19 "
Maintenance.....	.32 "
Total.....	4.71 cents

Allowances for garaging and road maintenance, also insurance and driv-

ers' wages have been omitted, as it is obvious that the farmer houses the vehicle in a barn, or lean-to shed that already exists for other purposes, and is subject to very moderate taxes, operates the car over roads which involve and certainly receive very little upkeep, does not insure the machine and drives the car himself.

This condition represents the most favorable assumption that can be allowed for the purpose of inquiry. Higher costs entering into calculations of volume would indicate a rapid curtailment in the extent of the potential market.

The average annual mileage per car derived from comparison of a total registration of 9,211,295 vehicles, with a total of 63,000,000,000 car miles per year, is evidently 6,840 miles per year, or 18.75 miles per day. These 6,840 miles at 4.71c = \$322 per year.

A FAMILY INCOME OF \$2000 A YEAR IS THE LOWEST THAT WILL SUPPORT AN AUTOMOBILE UNDER PRESENT COSTS

The Savings Bank Association of the State of New York has made a very comprehensive series of budgets for individuals and families in different income classes, in which a normal balance between essential expenditures, non-essential expenditures and savings has been estimated. While the separate budgets do not in all cases show progressively increasing allowances with increase of income, this is undoubtedly due to transition from one set of psychological characteristics to others in families of different social standing, with correspondingly different view points in regard to essential standards of living.

It will be of interest to anyone desiring complete information relative to detailed distribution of expenditures in different income classes to refer to

these budgets. They are so voluminous, however, that it is beyond the scope of this discussion to present more than a sufficient excerpt from these budgets to establish a fair conception of the margin of funds available for advancement and recreation, after provision for necessary living expenses and minimum saving. The following tabulation indicates the amounts available for advancement and recreation, and includes allowances for travel, car fare, gifts, charity, club dues, personal taxes, dentists' and doctors' services, newspapers and magazines, education, entertainment and amusement.

“Operating” includes shelter, light,

heat, fuel, housekeeping, supplies, water, telephone, domestic services, and laundry. “General” includes clothing, education, charity, amusements and health.

The National Industrial Conference Board quotes average expenditures for industrial families, as follows:

Food.....	43%
Shelter.....	18
Clothing.....	13
Fuel and light.....	6
Sundries.....	20

The Guaranty Trust Company quotes a survey made in Philadelphia in 1918 covering the expenditures of 260 fam-

ANNUAL INCOME	SINGLE INDIVIDUAL	FAMILY OF 2	FAMILY OF 3	FAMILY OF 4	FAMILY OF 5
\$900.....	84	...	...	...	...
1200.....	132	84	...	...	...
1500.....	180	132	132	84	48
1800.....	258	132	156	96	60
2100.....	300	204	180	120	84
2400.....	360	240	240	204	156
2700.....	540	...	240	192	180
3000.....	615	360	300	240	240
3300.....	...	...	360	300	300
3600.....	...	360	360	336	336
3900.....	...	...	360	360	360
4200.....	...	504	456	480	480
4500.....	...	...	480	480	420
4800.....	...	540	480	480	480
5400.....	...	600	600	600	660
6000.....	...	600	720	720	660

Babson reports the following distribution determined by the chairman of the National Budget Committee:

INCOME	FOOD	OPERATING	GENERAL	SAVINGS
\$1000 and under.....	30%	35%	25%	10%
\$1000-\$2000.....	23%	35%	29%	13%
\$2000-\$3000.....	20%	34%	28%	18%
\$3000-\$4000.....	18%	32%	30%	20%
\$4000-\$5000.....	16%	29%	29%	25%

ilies of five people each, with an average yearly income of \$1262 as follows:

Housing.....	14.1%
Fuel, heat and light.....	5.1
Food.....	44.1
Clothing.....	13.9
Help.....	2.6
Furniture, etc.....	2.8
Taxes, contributions, etc.....	2.0
Recreation.....	1.3
Reading.....	1.0
Insurance.....	3.2
Car Fare.....	2.5
Cleaning, supplies and service...	2.6
Miscellaneous.....	4.8
TOTAL.....	100.0

The U. S. Bureau of Labor Statistics reports expenditures during 1918-1919 for families averaging 4.9 persons, with incomes averaging \$1,434, as follows:

Food.....	38%
Shelter.....	13
Clothing.....	17
Fuel and light.....	5
Sundries.....	26

In view of the foregoing, together with other similar data, it takes quite a stretch of the imagination to concede that incomes as low as \$2,000 per year may provide a margin of 15 per cent or \$300 per year for recreational purposes, but in order to make due allowance for the strong hold which the automobile has upon the affection of the public, and to present as favorable a case as possible for the industry, \$2,000 per year is considered to be the lowest income that will support the most economical type of vehicle.

THE SATURATION POINT UNDER PRESENT COSTS OF OPERATING CARS

Income tax returns indicate the following number of individuals possessing incomes of \$2,000 and over:

1917.....	1,832,132
1918.....	2,928,998
1920 (Estimated).....	2,326,132

Assuming that prices and operating costs of automobiles shrink uniformly with wages, and that therefore the ratio between car registration for 1920 and the number of individuals with incomes of \$2,000 or more per year, as a potential market, remains constant as the level of prices, costs and wages sinks back to pre-war conditions, we find the following general condition:

Potential market for vehicles in	
private use.....	2,326,132
1918 corporations.....	317,579
Taxicabs and busses (estimated)	50,000

Total normal registration of	
passenger cars.....	2,693,711
1915 registration.....	2,445,664

While it is entirely a matter of opinion, it is probably safe to assume saturation has not been reached for trucks, and that 1920 registration is a fair index from which to calculate replacement demand. 1920 registration for trucks is reported to have been 990,000. It is also fair to make the same assumption for export. 1920 distribution was as follows:

Passenger cars.....	141,477
Trucks.....	29,288
TOTAL.....	170,765

A very comprehensive survey by *Colliers Weekly* establishes the average life of an automotive vehicle at 5.1 years. National Automobile Chamber of Commerce figures check within 1.5 per cent. It is therefore safe to assume average car life at 5 years.

The annual demand for replacement is then:

Passenger Cars.....	680,219
Domestic.....	538,742
Export.....	141,219
TOTAL.....	680,219

Trucks.....	227,288
Domestic.....	198,000
Export.....	29,288
<hr/>	
TOTAL.....	227,288

Total of all vehicles... 907,507

The total production of vehicles for 1920 shows the following distribution:

Passenger cars.....	1,883,158
Trucks.....	322,039
<hr/>	
TOTAL.....	2,205,197

OVER-PRODUCTION OF PASSENGER CARS

The normal demand for vehicles upon complete recovery is therefore apparently limited to:

Passenger cars....	36% of 1920 production
Trucks.....	70.60% of 1920 "

It may be assumed that there is no appreciable excess of trucks. In the case of passenger cars, the situation is very different.

1920 Registration of passenger cars.....	8,221,297
Estimated normal registration	2,693,711
<hr/>	
Excess.....	5,527,586

The rate of retirement from service, based on 5 years life, and the assumption that all cars registered in 1920 have been kept in operation at the same average annual mileage, is:

1921	1,493,617 cars	1916	Production
1922	1,740,792 "	1917	"
1923	926,388 "	1918	"
1924	1,657,652 "	1919	"
<hr/>			
	5,818,449 cars		

It would therefore appear that the market for passenger cars will be virtually nil until the fall of 1924, and that upon normal resumption at that time, the demand will not exceed 36 per cent of 1920 capacity.

The truck market should pick up, however, with resumption of general business, and reach 70.6 per cent of 1920 capacity.

Making no allowance for motorcycles, therefore, or for parts-manufacturers, distributors and service stations, approximately \$628,600,000 excess investment will ultimately have to be liquidated.

This conclusion is based upon the assumption that no modification of design or construction is made in the type of vehicle produced by the industry. Due consideration should, however, be given to the possibility of extending the utility of the automobile through modifications improving its economy, which would naturally very rapidly expand its volume.

POTENTIAL DEMAND UNDER REDUCED COST OF OPERATING CARS

For the purpose of inquiry, it is therefore in order to determine whether existing types of vehicles possess maximum utility, i.e., whether the net operating cost per mile has already been reduced to a minimum consistent with safety, comfort and performance. If the answer is affirmative, the situation offers no opportunity for improvement. If it is not, the doctrine of origin of species and survival of the fittest operating through unrestricted competition will result in modifications of design, selection and treatment of materials, and methods of construction that will produce vehicles which may be operated with maximum economy, at a price within the purchasing power of a sufficient number of individuals to insure a volume of production that will absorb a maximum proportion of the capacity of existing plants. This ultimate demand has its fixed limitation in the number of individuals possessing the amount of income at which the margin available for recreation disap-

pears. This occurs at approximately \$1,000 per year.

There are approximately 6,000,000 individuals in the United States possessing incomes of \$1,000 or more per year. On a five-year replacement basis, the maximum possible normal demand for passenger cars in private ownership then becomes 1,200,000 per year. The replacement of cars used by corporations, taxicab and bus lines amounts to 783,516, and export accounts for 141,477. The total distribution that could be attained at this absolute limit is then 1,414,477 vehicles per year or 75 per cent of 1920 production. This throws an interesting light on the amount of over-production at the recent peak of activity.

AUTOMOBILE COSTS AS RELATED TO THE NATIONAL INCOME

In order to gain some idea of the extent to which present costs may be decreased, it is necessary to consider the distribution of items in the grand total annual expenditure for automotive transportation. The following tabulation sets forth an analysis of the total:

Depreciation.....	\$1,900,000,000
Interest.....	285,000,000
Tires.....	1,131,000,000
Gasoline.....	1,237,500,000
Oil.....	123,750,000
Roads.....	720,000,000
Garaging (storage only) . .	756,000,000
Maintenance and supplies	950,000,000
Insurance.....	329,000,000
Drivers wages.....	735,600,000

TOTAL..... \$8,167,850,000

Analysis of the total annual production of wealth for 1920 shows the following distribution:

Farm Products.....	\$25,000,000,000
Manufactured Products .	24,000,000,000
Minerals, Timber, Fisheries, etc.....	4,000,000,000
TOTAL.....	\$53,000,000,000

It is of interest to visualize the extent to which labor is diverted from other channels of production to create and maintain automotive transportation.

All costs, in the last analysis, are accumulated wages. An analysis of the total expenditure shows:

Total annual expenditure, \$8,167,850,000.

Average laboring rate—1920, 45 cents per hour.

Total expenditure then equals 18,150,000,000 man hours per year.

The average working hours per year of 313 days at 8 hours are 2504.

The number of workers in full time employment equivalent to total expenditure is 7,250,000.

In other words, it has required 7,250,000 workers continuously employed, to keep 9,211,295 vehicles in operation. There are approximately 46,400,000 wage-earners employed in the United States. Approximately 16 per cent, therefore, are diverted from other channels of production. If this number were engaged in the production of foodstuffs, clothing, etc., they would account for an increase of approximately 18.5 per cent in the supply of essential commodities.

It is of interest to consider the use of automobiles in relation to the growth of the two major fields of production—manufacture and agriculture. The value of the annual production of farm products and manufactured products at different periods is reported in the table on page 116.

The period 1880–1900 indicates a parallel rate of growth during the twenty years preceding the use of automotive transportation. During this interval the value of both agricultural and manufactured products approximately doubled. The period 1900–1920 indicates a widely discrepant rate of growth in the twenty years during which automotive transportation has been introduced. The value of farm

YEAR	FARM PRODUCTS	MANUFACTURED PRODUCTS
1880	2,200,000,000	5,400,000,000
1900	4,400,000,000	11,400,000,000
1920	25,000,000,000	24,000,000,000

products has increased 5.7 times, while that of manufactured products has again approximately only doubled, in spite of the fact that the value of all vehicles, accessories and supplies produced is included in the total reported for manufactured products.

Assuming the rate of increase of value of manufactured products to have been the normal index for both periods in proportion to increase of population and per capita circulation of currency, and the same to have been true of farm products from 1880 to 1900, we may assume that a normal rate of growth would have shown a value of farm products for 1920 of \$8,800,000,000. On this basis, we may consider approximately \$16,200,000,000 to represent an abnormal increase and assume that the increased production has been made possible through the use of automobiles.

It is undoubtedly true that, owing to lack of facilities for transportation by public utility in outlying districts, the automobile has made it possible to extend the radius of agricultural cultivation to distances much further removed from centers of collection and distribution of freights, and of passenger transportation by public utility than would have been possible without this means of transportation. The National Automobile Chamber of Commerce reports 34 per cent of total mileage to have been in districts where there is no other adequate communication.

It is of interest to note that the type of vehicle absorbed by agricultural districts is the light economical car of the Ford class.

Assuming that half the total mileage is made by Fords in agricultural districts, which is generally conceded to be true, and that the mile cost of a Ford, as used by the farmer, is 4.71 cents, we account for \$1,483,650,000 of the total expenditure for automotive transportation or 5.93 per cent of the wealth produced on farms.

By difference, we find a total expenditure of \$6,684,200,000 in manufacturing and residential districts or 27.85 per cent of the wealth produced in factories.

If the use of automobiles resulted in enough increase in production to justify its cost, we should find an abnormal increase in volume sufficient to absorb the cost of automotive transportation in manufacturing districts. As has previously been demonstrated, this is not the case. There has been no corresponding abnormal rate of increase in the value of manufactured products. It is therefore undoubtedly true that automotive vehicles have not justified their use on economic grounds, outside of agricultural districts. Except in isolated cases, they exist only for convenience, flexibility in transportation and pleasure, and must properly be counted luxuries. The passenger automobile and in many instances, also, the truck, is therefore to no small extent chargeable with responsibility for increase in the cost of living, so far as this is affected by the cost of manufactured products.

On the other hand, it is apparent that automotive transportation in agricultural districts possesses distinct utility. The margin of excess produc-

tion of farm products attributable to the use of automobiles is wide enough to support its pro rata quota of heavier and more expensive vehicles, and it is of interest to note that the farmer has in recent years begun to buy higher grade passenger cars, and to use the finest trucks.

CARS OF PRESENT TYPES TOO EXPENSIVE TO PERMIT DEMAND TO BE EQUATED WITH OUTPUT

In view of the foregoing, it is obviously true that the most economical cars possess distinct utility in but half the field of production and that, in general, existing types are still too expensive to be operated by a sufficient number of individuals to restore the volume required to absorb the capacity of the industry.

It has been shown that, at the extreme limit of normal demand for improved types, the total production would be limited to 75 per cent of 1920 capacity. This means that under the most favorable conditions competition will eliminate a sufficient number of the weakest manufacturers to aggregate a total capacity of 470,780 passenger cars and 94,751 trucks per year. If no improvement is shown in construction, the total elimination will be enormously greater. It is important to note that this condition can be offset only by increase of population and longer working hours and, as political pressure is being brought to bear to limit immigration and prevent lengthening of hours, the industry can anticipate no relief from external expansion of its market, but must rely entirely upon the efficacy of its own internal reconstruction.

As has been stated, only one condition can approximate maximum volume and that is the production of the least expensive and most economical cars.

The manufacturers who survive the existing depression will be the ones who achieve this result.

CAR DESIGN DEVELOPING IN WRONG DIRECTION

An examination of factors controlling price and economy in operation leads to the conclusion that a great deal may be accomplished in the way of improvement by reduction of weight to a minimum, by decrease of power to the normal requirements for propulsion at ordinary speeds, and by limitation of speeds.

These objectives, while accepted in principle, established in fact and widely advertised, have unfortunately not been generally applied in the practice of designing and manufacturing cars. An outstanding fact, attested by examination of specifications of current models is that 1921 cars are heavier, higher powered and operate at higher speeds than 1920 models—obviously a step in the wrong direction.

The curves on pages 118-124 are of interest in connection with an inquiry into the relation of weight to economy.

Commenting upon the extreme variation in prices and operating costs shown by these curves, it is of interest to note that the National Automobile Chamber of Commerce admits that lighter and more economical cars can be produced, and will be produced when it is necessary for the industry to do so.

The one outlet for excess capacity is through production for export. If we are manufacturing cars which are not sufficiently economical to warrant their indefinitely continued use in the United States, how can we expect to export them to countries where the cost of petrol is prohibitive, per capita wealth and income are so much lower and an adverse price differential has been set up against us by depreciated exchange?

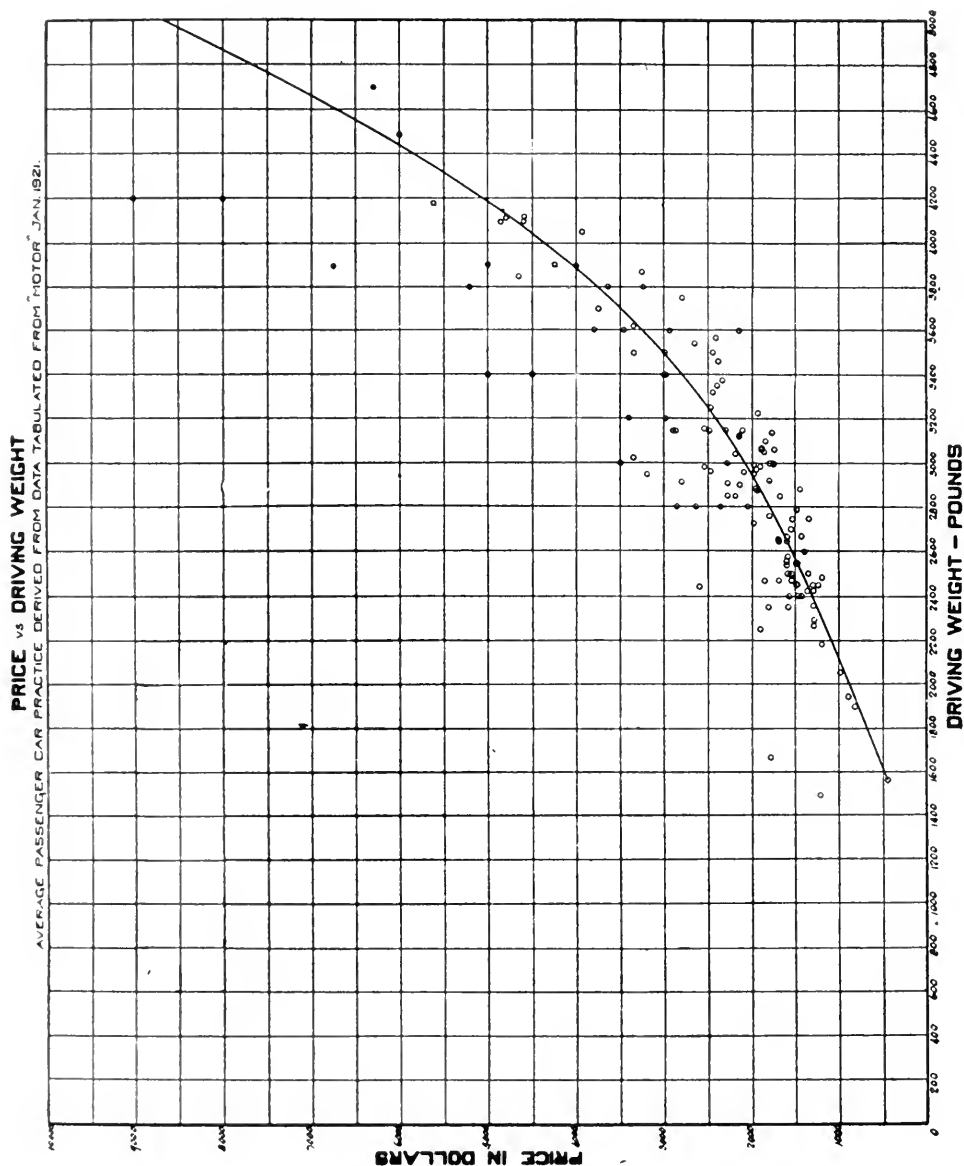


FIGURE 1

In the weight range from Ford at 1,600 pounds, to average weights for other models 3,040 pounds, the variation of price with weight is approximately \$1.00 per pound.

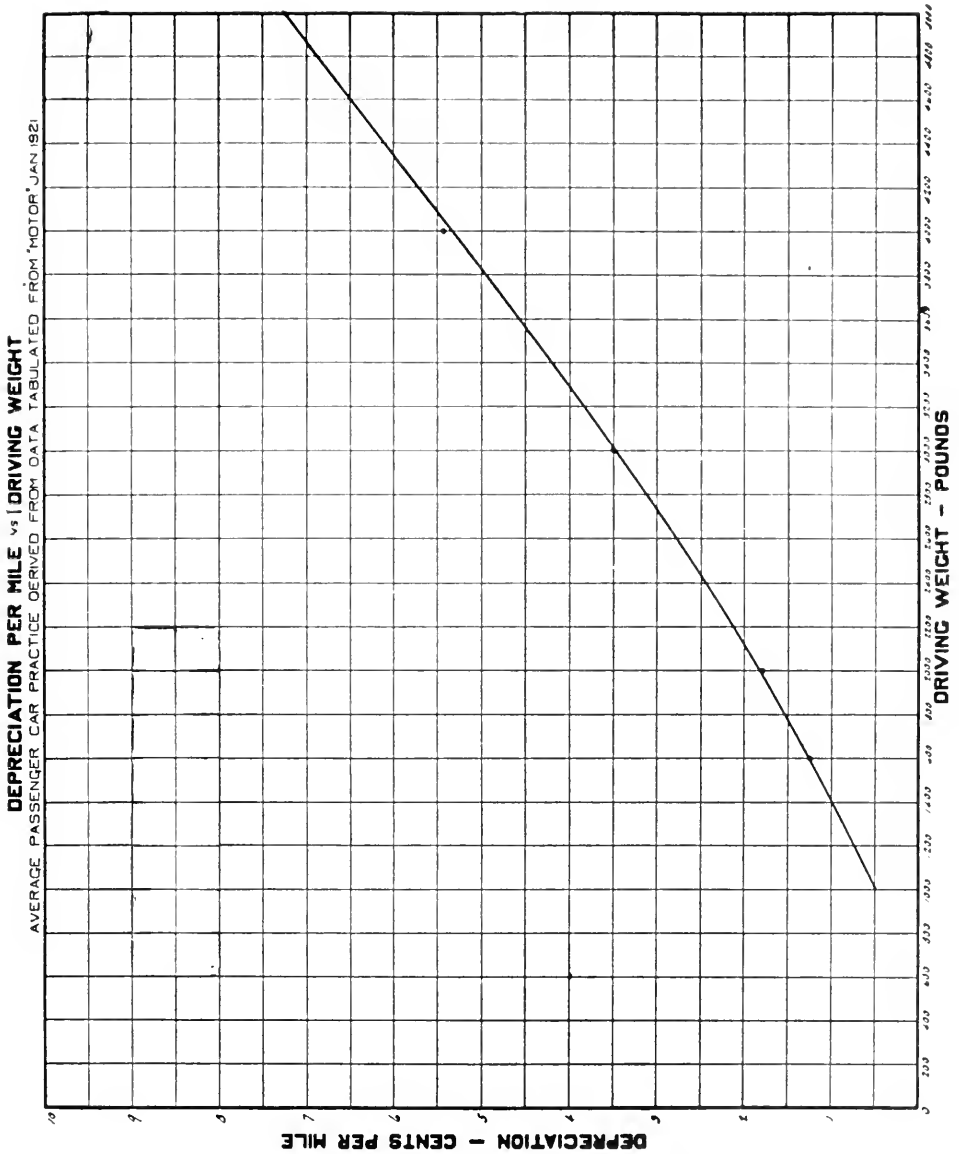


FIGURE 2

Based on 40,000 miles life of 1600 lb. car

50,000	"	"	"	2000	"	"
60,000	"	"	"	3000	"	"
80,000	"	"	"	4000	"	"
120,000	"	"	"	5000	"	"

It should be noted that these mileages are extremely favorable to the automobile, actual mass total experience indicates an average life of 35,000 miles.

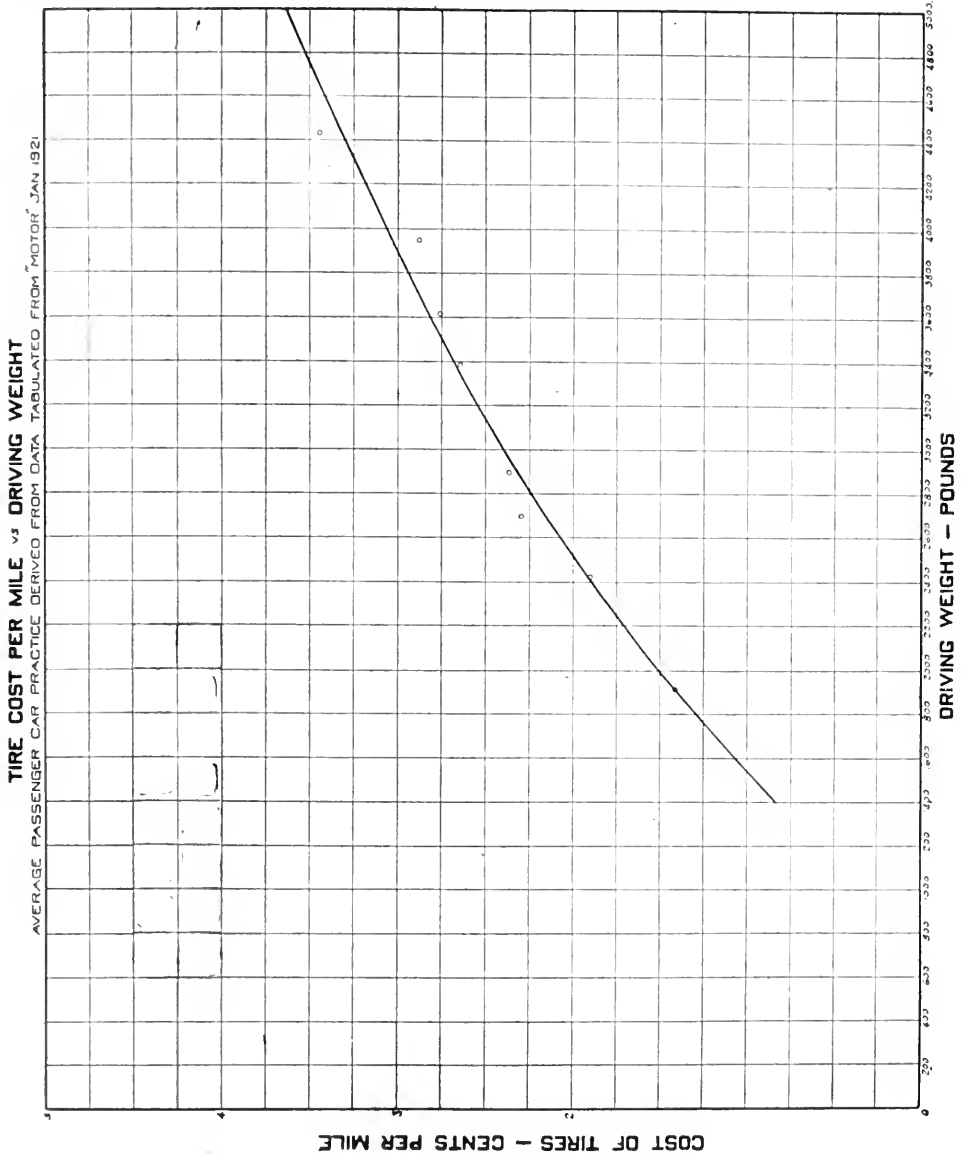


FIGURE 3

Cost per Set

\$90 20	30" x 3 1/2" Fabric	7 cars averaging 1910 lbs.	7000 miles
168 60	32" x 3 1/2" "	10 " "	7000 "
222 60	31" x 4 " Cord	3 " "	10,000 "
230 20	32" x 4 " "	41 " "	" "
237 40	33" x 4 " "	24 " "	" "
263 00	32" x 4 1/2" "	29 " "	" "
269 40	33" x 4 1/2" "	10 " "	" "
276 40	34" x 4 1/2" "	12 " "	" "
287 20	33" x 5 " "	7 " "	" "
244 00	35" x 5 " "	9 " "	" "
	35" x 5 1/2" "	1 car "	" "

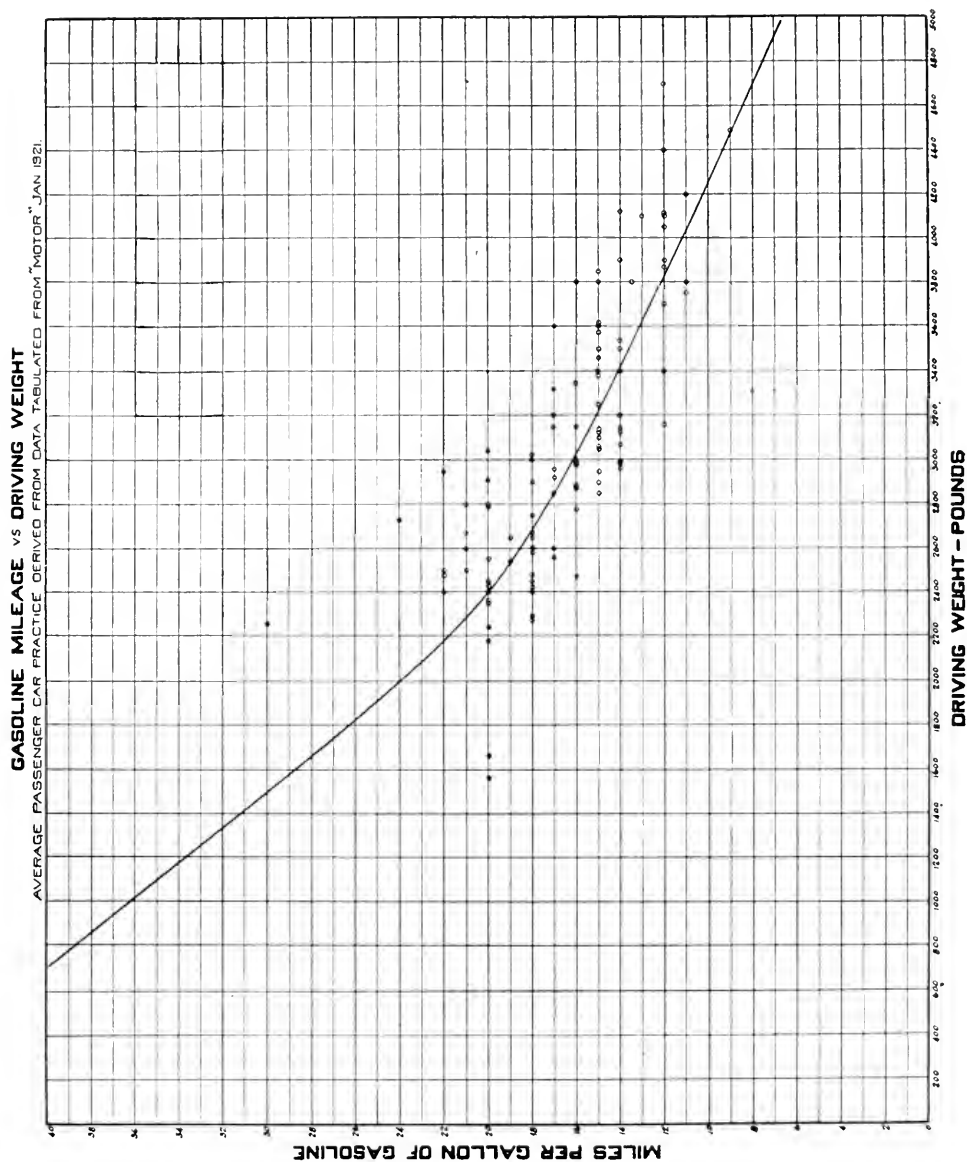


FIGURE 4

1 car	1900 lbs.	30	miles to gallon	10 cars avge.	3028 lbs.	16	miles to gallon
1 "	2250 "	25	" " "	20 "	3308 "	15	" " "
1 "	2730 "	24	" " "	13 "	3342 "	14	" " "
4 cars avge.	2583 "	22	" " "	1 "	3800 "	13 $\frac{1}{2}$	" " "
4 "	2643 "	21	" " "	1 "	4100 "	13	" " "
16 " "	2473 "	20	" " "	11 "	3936 "	12	" " "
2 " "	2595 "	19	" " "	4 "	3990 "	11	" " "
18 " "	2613 "	18	" " "	1 "	4490 "	9	" " "
9 " "	3016 "	17	" " "				

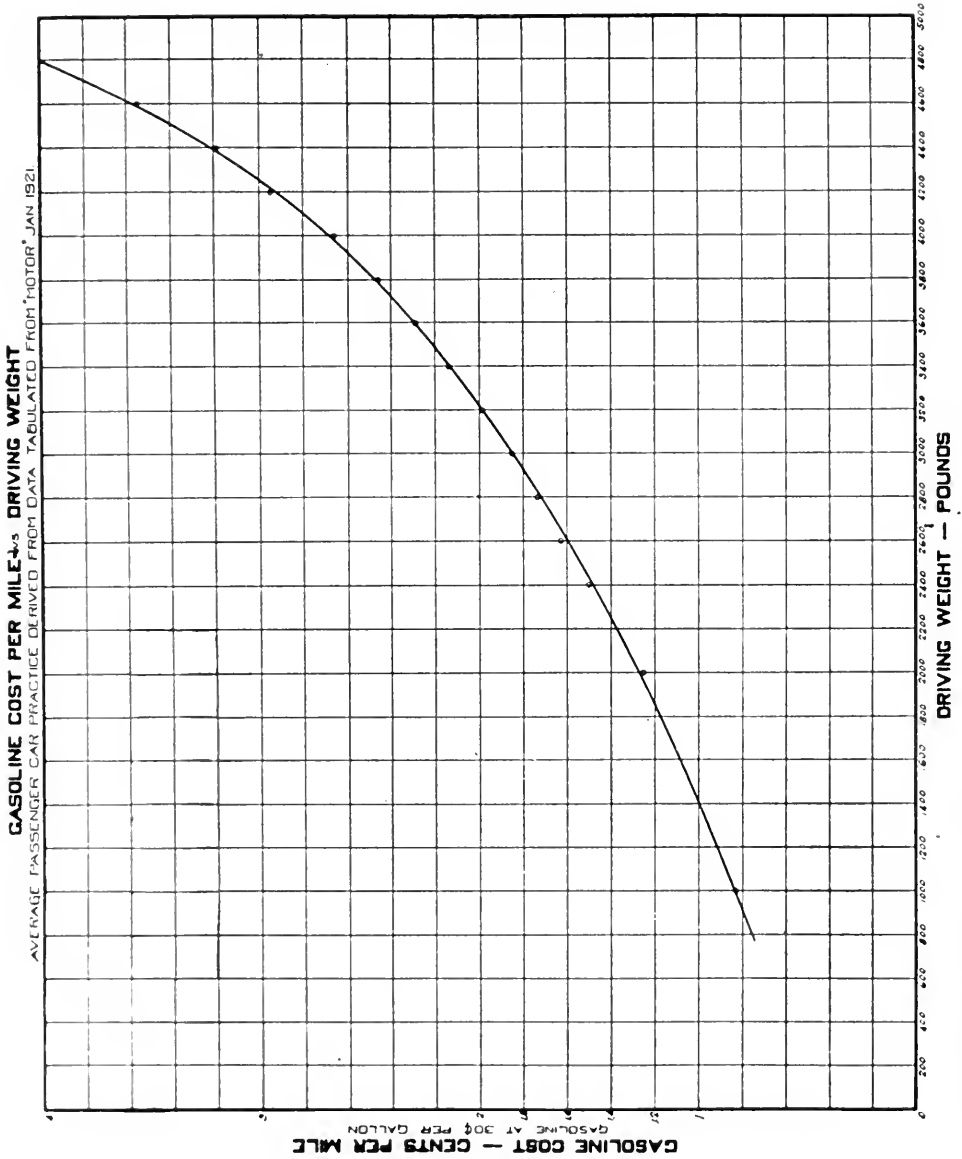


FIGURE 5
Derived from gasoline mileage vs. driving weight.

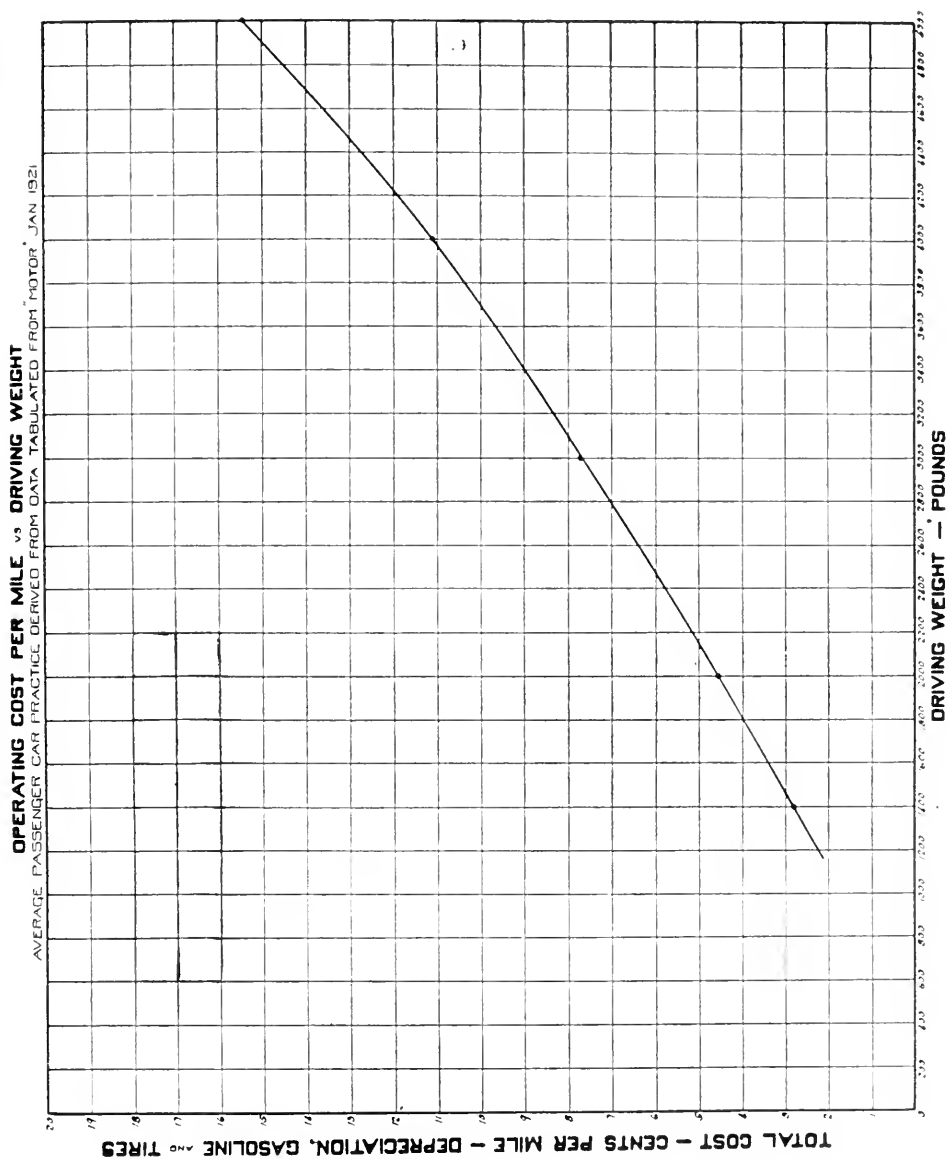


FIGURE 6
Summation of preceding curves.

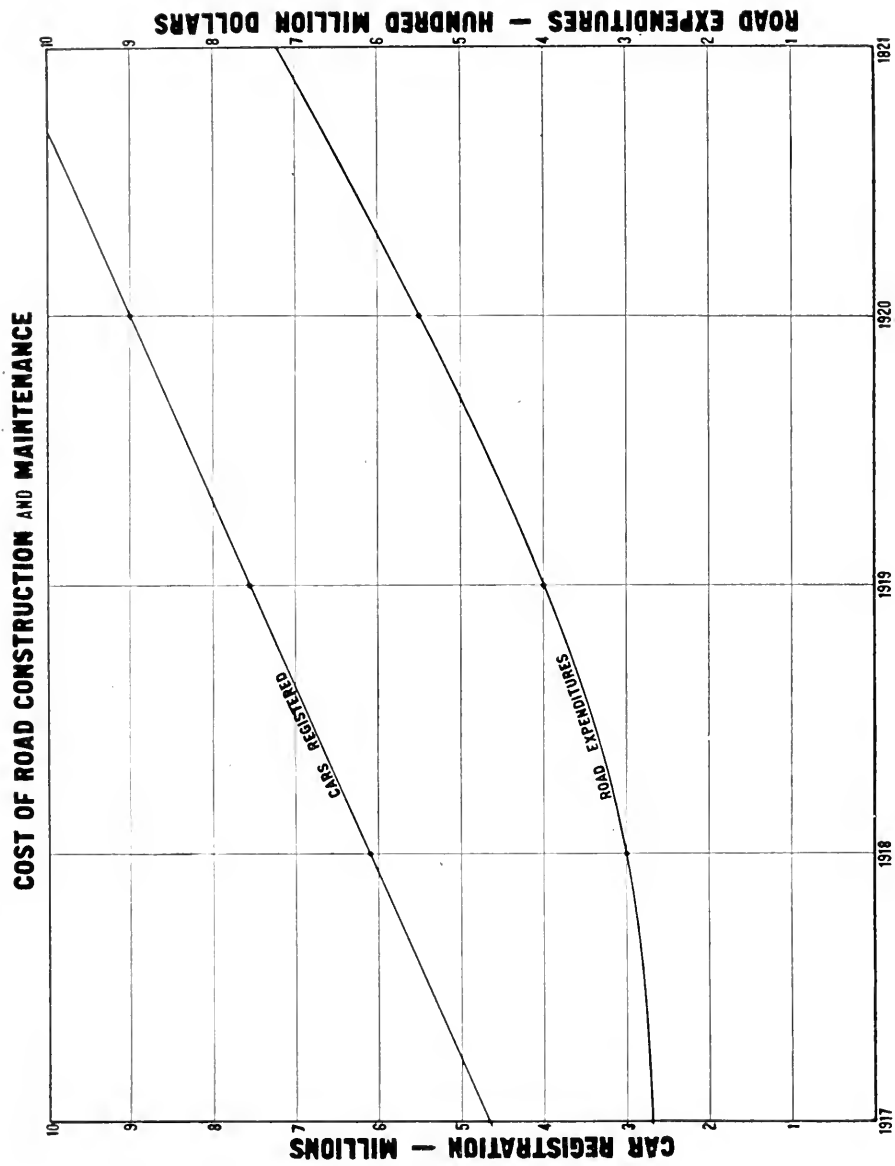


FIGURE 7

YEAR	EXPENDITURE FOR ROADS	CARS REGISTERED	PER CAR
1914	\$235,000,000	1,754,570	
1918	\$300,000,000	6,146,617	\$48.80
1919	\$400,000,000	7,523,664	\$53.20
1920 .....	.....	9,211,295	\$61.10
1921	\$720,000,000	....	\$70.00

ECONOMY OF OPERATION SACRIFICED FOR POWER AND WEIGHT

A careful examination of the foregoing charts, together with detailed specifications listed at length in the statistical numbers of the leading trade journals indicates that economy of operation has been sacrificed for power and weight. First cost has been unduly increased by provision of detailed equipment and finish, tending toward a maximum of luxury in appointment and appearance.

The latter contribute entirely toward pride of possession, and do not in the slightest degree promote the mechanical efficiency of transportation. The former may be analyzed as follows:

"Power"—a large surplus of available capacity for development of mechanical energy over and above needs for propulsion at ordinary speeds. Provided for "pinch" purposes to avoid necessity for shifting gears. Excess utilized less than 1 per cent of driving time for extraordinary performance and acceleration in traffic, on bad roads, in informal road races and on hills. Results in 99 per cent operation at low thermal efficiency, with consequent wastage of gasoline under ordinary road conditions at usual touring speeds.

"Weight"—excess mass provided to give inertia in resistance to sudden accelerations and decelerations, contributing a sense of smoothness and stability in operation, and dampening the response to road shocks resulting from unnecessary speed. An expedient corrective for lack of driving skill in manipulation of clutch, accelerator, gear shift, and brakes, as well as failure to regulate driving speeds to road conditions.

While excess power and weight have contributed to spectacular performance

and have assisted publicity in promotion of sales for a time, has not the question been begged? Would it not have been better in the long run to have designed for economy in operation, refined our clutches and brakes and taught car operators how to drive?

THE POSSIBILITY OF INCREASED GOVERNMENT REGULATION OF THE AUTOMOTIVE INDUSTRY

Even if commercial expediency had warranted the temporary exploitation of the automobile as a novelty with the understanding that it must ultimately be expected to repeat the history of the bicycle on a larger scale, and if, under the circumstances, costs had been so fully amortized in current production that the industry could face with complacency the abandonment of some portion of its capital investments or their diversion to other uses on shrinkage of demand to normal volume, could the industry expect to escape compulsory legislation in the end, if it failed of its own volition to design for economy?

It seems short-sighted to overlook the potential political effect of an ever and rapidly increasing burden for construction and maintenance of roads. The public is already spending \$720,000,000 per year, approximately \$80 per vehicle, for this purpose. Car owners are paying \$98,000,000, or about \$11 per car in licenses. The non-car owning public is paying \$69 per car.

With approximately 30,000,000 qualified voters, averaging \$24 each per year, about 22,000,000 or 73 per cent of whom neither own nor drive cars but have to foot the bill, how long will compulsory legislation limiting vehicle weights and speeds be delayed? Road impact is most certainly a function of mass and velocity, and road failures are a function of impact. The conclusion is obvious.

THE FUTURE OF THE AUTOMOTIVE INDUSTRY A MATTER OF THE SURVIVAL OF THE FITTEST

It would seem inescapable that the vehicles of the future as they evolve from present types in survival of the fittest will be those which furnish comfortable and safe transportation, with minimum cost per unit of service rendered, *i.e.* per passenger or ton mile, and the industry cannot count itself to be established on bed rock until this unit cost approximates the cost of equivalent service by public utility. It is true that some slight premium may be warranted for flexibility and privacy in the control of individual transportation.

It is also true that some individuals will always be able to finance the operation of a limited number of the most expensive and luxurious cars, and intermediate grades,—but the number of models and quantity of each which are produced will undoubtedly bear a fixed and definite relation to the number of individuals of higher incomes sufficient to support the cost of each such model.

It must also be conceded that, in some cases, service at any cost will warrant the use of the highest powered cars, in matters of life and death or protection, by physicians and hospitals, by fire and police departments and by the army, and also that cars of this character will be required for the transportation of mail and perishable goods, etc., but in general it can be conceded to be true that economy must be attained.

STEPS NECESSARY FOR THE REVIVAL OF THE INDUSTRY

On careful consideration, it would seem that the first great step forward toward economy can be accomplished by adjustment of the basis of distribution, so that the average commission on

sales may be reduced from present figures, averaging 25 per cent to 30 per cent of list to a level more nearly commensurate with the fair cost of selling other commodities.

A second great step forward would be a change in service policy, so that the maintenance of cars in use might be handled promptly and efficiently on a narrow margin in order to encourage distribution instead of continuing service as a vehicle for an abnormal profit that will kill the goose that lays the golden egg.

Limitations of power and speed, decrease of weight and the general use of the highest grade of alloy steels throughout construction will lengthen vehicle life, decrease depreciation and minimize cost.

On the face of the situation, it would appear that the distribution of cars has been forced on an unwarranted basis, and that the industry has become very dangerously inflated. There are millions of cars in excess of normal requirements which will glut the market for months to come, until they are eventually worked out of service. Their existence will undoubtedly impede the sale of new cars through inability of distributors to finance "trade-ins" indefinitely, or to move used cars in the volume offered. The effect will be to depress or break prices and curtail production during a prolonged period, as previously estimated.

The surest markets and quickest recoveries should be experienced by a limited number of high grade cars, and by the most inexpensive and economical light weight vehicles. The intermediate group must look forward to a prolonged and difficult period of readjustment prior to recovery, with many instances of liquidation.

While it is possible and certainly highly desirable that an orderly readjustment may take place, with com-

binations and absorptions in which due regard is had to the respective equities of all interests involved, it is unfortunately highly improbable that this will be the case. It is practically certain that there will be the keenest competition for business, with ultimate survival by a relatively small group of large and aggressive manufacturers producing a limited number of models of light economical cars at low cost on a large volume basis, and a few small manufacturers producing a very limited quantity of high grade expensive cars.

It is most regrettable that so meritorious an achievement as the development of automotive transportation should have been marred by the misfortune of over-expansion. It is entirely natural that there should have been some lack of foresight. It is a trait inherent in human nature. The extent of its failure to perceive its limitations is the only criticism that may fairly be leveled at the industry, not its failure *per se*. To a considerable degree it should be recognized that the condition of unbelievable prosperity during the recent period of inflation unavoidably absorbed attention in matters of production and distribution to the exclusion of mature consideration and sound analysis.

To the end, therefore, that the stability and continuity of the automotive industry may be assured, that its investments may be safe-guarded and its personnel protected against deviations from normal progress, it is of fundamental importance that there should be an accurate determination of the market, adjustment of production to current demand, combination and consolidation of facilities for production, limitation of models for quantity production, redesign to promote simplicity and economy, recasting of distributing and service methods, reduction of prices to a minimum and an orderly

and voluntary liquidation of excess investment.

If these things are not accomplished, the industry will be restricted by the effects of legislative regulation, limited by the purchasing power of the market, checked by bankers withholding funds needed for expansion in legitimate instances and embarrassed by their withdrawal of current outstanding loans until the total capital invested in the industry is balanced by liquidation to the normal requirement for curtailed production.

As a result of the process of elimination of the least fit in the unrestricted competition of a buyers market, the principle of marginal utility will establish the level of prices set by the weakest survivor, for the entire industry. These being necessarily low enough to maintain the distribution of the least desirable car, will curtail to a minimum the profit on sales experienced by the industry as a whole.

CONCLUSION AS TO THE PROSPECTS OF THE AUTOMOTIVE INDUSTRY

In conclusion, it would seem that the automotive industry may anticipate recovery under the following general conditions.

Passenger Cars. Tapering increase from present volume to 36 per cent of 1920 production by fall of 1924. Low prices, narrow margins and heavy liquidation *ad interim*.

Trucks. Prompt recovery to 71 per cent of 1920 production upon resumption of general business. Close prices, moderate margins and appreciable liquidation in the interim.

Parts, Accessories and Supplies will follow trend of passenger cars and trucks.

The foregoing conclusions may be modified by the extent to which lighter and more economical vehicles are produced and distributing and service methods are modified.

The Building Complex

By A. D. WELTON

Continental and Commercial National Bank, Chicago

IN common with all other industries that of building construction was influenced by the war. The demand for it found stimulation in the general business activity that accompanied expansion, but building materials were not the subject of priority orders and in 1918 the Secretary of the Treasury made an appeal to the public to stop all but necessary building. The diversion of building materials to war work had a pronounced effect, and credit for building, when not frowned on by any of the numerous war boards, was restricted by voluntary action of those in control of it, if not by the potential borrowers themselves.

PRICE VAGARIES

Prices for labor and materials went skyward with other prices and are coming down with even greater reluctance. Among the price index numbers building material is found to be one of the most industrious performers. In comparison with the all-commodities index number it moved up more slowly, but it kept on advancing after other prices had stopped and was exceeded only by house furnishing goods in the latest comparisons.¹

At the time following the armistice, when a resumption of building might have been expected, the building material index number reached new high points. In January, 1920, it was 268, with all commodities at 248. In April, it was 341 with all commodities at 265, and when the latter reached its maximum of 272 in May, 1920, building materials stood at 341. It has receded slowly, reaching the low point of 202

in May last when the all-commodity number was 151. Only the number for house furnishing goods was higher.

ANALYSES OF THE BUILDING SITUATION

While the building material prices were making these records, building was almost at a standstill the country over. There were many surveys of the situation. The advance of rents to unprecedented figures called all kinds of legislative bodies into action. There were investigations, recommendations, suggestions, new laws, court proceedings, vast amounts of publicity, and defense organizations formed by tenants to combat the greed of profiteering landlords. The United States Senate appointed a "Select Committee on Reconstruction and Production" with Senator W. M. Calder, of New York, as chairman. This committee held hearings in different parts of the country, and submitted a report on March 2, 1921. The report is perhaps more interesting for its information than its conclusions and suggestions of remedy by legislation, and no small part of the interest is aroused by its dissonances rather than its consonances. This is not surprising. In such surveys there is always a pronounced tendency to confuse causes and effects and search for the former is likely to lead afield, especially when conditions are not yet settled. The report is none the less a very valuable contribution.

The New York Legislature appointed a committee to investigate the building situation. The Illinois legislature did likewise, and in both instances there was uncovered sufficient evidence of combinations in restraint of trade,

¹ The Bureau of Labor Statistics index numbers of wholesale prices are cited.

conspiracies, agreements, bribery and collusion, to warrant criminal indictments and in some instances convictions have already been secured. Material men, contractors and labor leaders were involved and the investigations have not been completed.

BUILDING DETERRENTS

Even cursory examination of the building situation will disclose that it was influenced by the many factors that entered into the general dislocation. Attempts to attribute conditions to any one cause must fail, and the application of any one remedy would fail as decisively.

Wages, their increase and stubborn maintenance at the high level, have been frequently given as the one or chief deterrent to new building enterprises. It has been one deterrent, of varying force in different communities, but it has probably been no greater a deterrent than labor inefficiency, which cannot be expressed in terms of dollars.

The price of building materials has been a deterrent but price at times was no more effective to stay the desire to build than scarcity of materials. Senator Calder's committee went beyond the question of the price of materials in the effort to find causes. It fixed on coal, coal mining and coal distribution, as a fundamental cause of the high price of building materials, with transportation, and its cost and inefficiency, in second place, and the direction of credit, in third. Coal is placed as the great sinner. For a time it pushed everything else off the railways. It sought and received, or was naturally given priority while building was under the war ban. Coal was gambled in, held back, made short by strikes, stored in cars that could have been used for other purposes, and finally was bid up to a figure that found

reflection in the price of building materials, like lime, brick and cement.

However, in the same report, it appears that subsequently coal was plentiful, if not cheap, that there were many thousands of idle cars, that the consuming public was all but tearfully asked to buy immediately, and still building materials were high and building lagged. But coal and its carriage must be given position as a contributing cause to the failure of a resumption of building.

In the enumeration of causes of the building slump, the bankers came in for frequent and vigorous denunciation for withholding credit. The Federal Reserve insurance companies which make mortgage loans were pilloried, and the builders and real estate operators seemed to take particular joy in hammering these forces.

BUILDING SHORTAGE REAL

The definite information to be gained from study of the current history of building construction is that there is a shortage of building the country over. At the time this is written, the shortage is finding little to alleviate it.

Building is gaining a little everywhere in comparison with the duller periods, but generally construction work is waiting for release from the domination of prices that are still high, and conditions that make for costs beyond the probable replacement value two or three years hence. Money which goes into the construction of buildings is returned slowly. The investment is usually amortized over a long period of years. When there is prospect of a fall in wages or materials, building becomes a highly speculative adventure. The building of today will have to meet the competition of the new one built tomorrow with cheaper materials and

labor. If it does meet that competition, part of the money used for its construction must be charged off as loss. The value must be written down to meet the new scale of price and wages.

Various estimates of the building shortage are current. At the annual convention of Real Estate men in Chicago in July, Herbert Hoover said:

I need not recount to you that the cause of this critical problem has been the diversion of our economic strength from permanent construction to manufacture of consumable commodities during and after the war. In 1910 we averaged about 110 families for each 100 homes and in 1920 about 117 families. This indicates a shortage of nearly 1,500,000 homes even on the 1910 standard.

Mr. Hoover also asserted that 60 per cent of the population is living as tenants, which he considered too large a proportion for social safety.

The building shortage is real. The best and most recent study of it is that of Mr. A. G. Wheeler in the *Bankers Economic Service* (Special Analysis June 21 to July 12.)

Mr. Wheeler explains this table as follows:

"We see that during the twelve-year period beginning with 1909 and ending with 1920, only three years show a surplus of relative volume over normal building operations, while nine years show a deficit; and that the final result is a net deficit of \$2,884,600,000 in relative volume. This amount, then, expresses the relative shortage of

TABLE I—BUILDING OPERATIONS IN THE UNITED STATES FOR THE PERIOD 1909-1920*

	<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>	<i>V</i>	<i>VI</i>	<i>VII</i>
<i>Year</i>	<i>Population</i>	<i>Total</i>	<i>Index</i>	<i>Relative</i>	<i>Relative</i>	<i>Relative</i>	<i>Relative</i>
	<i>of the</i>	<i>Expenditures</i>	<i>Number</i>	<i>Relative</i>	<i>Normal</i>	<i>Surplus</i>	<i>Volume</i>
	<i>United States</i>	<i>in Thousands</i>	<i>Building</i>	<i>Volume of</i>	<i>Volume of</i>	<i>or Short-</i>	<i>Per Cent</i>
	<i>in Thousands</i>	<i>of Dollars¹</i>	<i>Materials</i>	<i>Building in</i>	<i>Buildings³ in</i>	<i>age in</i>	<i>of</i>
			<i>Group²</i>	<i>Thousands</i>	<i>Thousands</i>	<i>Thousands</i>	<i>Normal⁴</i>
1909	90,812	1,132,500	96	1,169,000	1,056,300	+	112,700
1910† . . .	91,972	1,075,300	100	1,075,200	1,069,700	+	5,500
1911	93,708	1,050,500	100	1,050,400	1,089,900	—	39,500
1912	95,157	1,101,100	98	1,123,500	1,106,700	+	16,800
1913	96,509	1,016,600	99	1,026,900	1,122,400	—	95,500
1914	98,289	921,000	96	959,400	1,143,100	—	183,700
1915	100,041	965,800	93	1,038,500	1,163,400	—	124,900
1916	101,091	1,140,300	100	1,140,300	1,175,600	—	35,300
1917	102,228	819,200	124	660,600	1,188,900	—	528,300
1918	103,466	496,500	151	328,800	1,203,300	—	874,500
1919	104,519	1,505,300	192	784,000	1,215,500	—	431,500
1920† . . .	105,683	1,607,800	308	522,600	1,229,000	—	706,400

—3,019,600 Average, 79%
+ 135,000 Shortage, 21%

Relative Shortage, 2,884,600

* Base 1909-13.

† U. S. Census. Other years estimated.

¹ Corrected to equal 286 cities in each instance.

² U. S. Bureau of Labor Statistics.

³ The per capita average (1909-13) applied to the population's growth.

⁴ Decimals omitted.

TABLE II—SHORTAGE BY YEARS

	<i>Relative Amount</i>	<i>Per Cent of Total Shortage</i>
1914.....	\$183,700,000	6.37
1915.....	124,900,000	4.33
1916.....	35,300,000	1.23
1917.....	528,300,000	18.31
1918.....	874,500,000	30.31
1919.....	431,500,000	14.95
1920.....	706,400,000	24.50
Total.....	\$2,884,600,000	100.00

SHORTAGE BY GROUPS OF STATES

	<i>Relative Amount</i>	<i>Per Cent of Total</i>
New England.....	\$336,921,000	11.68
Eastern States.....	1,255,378,000	43.52
Southern States.....	190,095,000	6.59
Middle West.....	234,518,000	8.13
Western States.....	279,518,000	9.69
Pacific States.....	588,170,000	20.39
Total.....	\$2,884,600,000	100.00

TABLE III—RATIOS OF BUILDING OPERATIONS BY CITIES, 1909-1920*

Per Cent of Normal
(decimals omitted)

Year	<i>New York</i>	<i>Chicago</i>	<i>Philadelphia</i>	<i>Detroit</i>	<i>Cleveland</i>	<i>St. Louis</i>	<i>Boston</i>	<i>Baltimore</i>	<i>Pittsburgh</i>	<i>Los Angeles</i>	<i>San Francisco</i>	<i>Buffalo</i>	<i>Milwaukee</i>	<i>Washington, D.C.</i>	<i>Newark</i>	<i>Cincinnati</i>
1909....	134	104	116	88	85	127	84	88	126	68	134	99	98	122	114	88
1910....	99	104	96	92	84	99	91	98	99	98	93	85	78	99	101	93
1911....	91	110	100	89	99	94	108	98	84	96	87	94	97	115	81	135
1912....	104	92	93	111	103	104	120	104	81	123	99	117	123	103	86	97
1913....	72	90	95	120	129	76	97	112	110	115	87	105	104	61	118	87
1914....	62	85	87	105	145	64	138	108	132	60	114	95	79	60	73	90
1915....	79	100	99	115	173	58	167	113	106	40	57	106	89	78	59	153
1916....	92	106	114	158	158	59	144	110	94	44	69	107	112	91	64	109
1917....	34	47	62	92	113	42	98	69	62	37	46	68	64	61	50	84
1918....	15	20	22	32	48	19	26	25	34	15	21	36	21	27	23	30
1919....	54	48	74	111	104	48	62	112	50	37	28	52	69	59	69	56
1920....	37	21	38	61	89	21	46	67	34	47	30	32	31	34	42	38
Shortage†	27	23	17	3	1	34	2	8	16	36	28	17	20	24	27	12

* Base 1909-13 = Hypothetical Normal.

† Accumulated Shortage for the entire period.

building in 286 cities of the United States, although when the amount is released from its subjection to the price level² it becomes \$8,884,568,000 which states it in the terms commonly used; the real shortage, however, is expressed by the previous figure."

"The ratios of building operations given in the table,"³ says Mr. Wheeler, "show the per cent of normal building attained each year. Normal is, of course, hypothetical, and in the present instance is arrived at by using the average of the five-year period, 1909-1913, as a base from which to draw the volume of building per capita for a representative period. This per capita amount is then applied to the population's growth at the various points each year to date."

HOUSING SHORTAGE THE CHIEF IRRITATION POINT

Mr. Wheeler gives definite information. It compels the conclusion that much building is required to bring conditions to normal everywhere. Normal, however, is a hypothetical term, as Mr. Wheeler points out. The tables show that there is a tendency to over-build which becomes strongly pronounced at times. Building, also, is a general term. It includes many structures besides residences. It is the lack of residential buildings which has caused most of the discussion. It is the shortage of these that has opened the way for the increase of rents. These increases fell with the greatest force on the people least able to bear them. The hardships that followed were very real. The rent profiteers were unpopular. They were openly taking advan-

tage of the situation. Not only were rents enormously increased, especially in the large cities, but every effort was made to compel the signing of long-term leases at the advanced rates. The outcries were long and loud. Thousands of plans were offered as a means of aiding tenants and punishing landlords. There were some new laws and some restraints in the enforcement of old ones but, generally, the law afforded scant relief. It probably was less effective than the publicity. Interference with the rights of owners of property is very difficult in this country of Anglo-Saxon institutions.

There were elements in the situation, even at the stage of its acuteness, which showed the futility of the effort to adapt permanent remedies to a transitory case. In New York, for instance, a survey showed that there were thousands of buildings unoccupied. They were devoid of conveniences and no one seemed interested to live in them. In Chicago there were always vacant tenements. The people, however, had been prosperous. Wages were high, money was plentiful, and, with characteristic American desire, the demand was for dwellings and apartments equipped with all manner of modern conveniences. There was a steady movement from old buildings to new or better ones so long as any were obtainable.

THE LAG IN HOME BUILDING TRANSITORY

A notable feature of any movement for business expansion is the position of real estate and building in the scheme which involves increasing activity in all lines of business over a considerable period. Real estate seems always to be last to feel the influence of such a general movement. It is equally slow to respond to the change downward in activity. The reasons are not difficult

² With the change in the index figure found in column III there will be change in the dollar enumeration of the building shortage. This, however, will not account for the various estimates of the shortage which appear from time to time. They are mere guesses.

³ Table III.

to find. A new home, or a new or additional business structure, is a consequence of prosperity—of the capacity to pay for it. Dwellings, whether detached or in apartments, are not subject to sudden changes. They are occupied by the owners or are under lease, and changes of occupancy are infrequent. A change in business conditions must be of some duration before its influence is exerted to affect a position so permanent. Once a new adjustment has been made, however, a similar degree of permanency halts the change. A lag in building construction, particularly of homes, might be expected for these reasons, but the regular procession of economic depression is lowering of prices, slowing up in volume of production and consequent reduction in the amount of capital needed. This brings a fall in interest rates. There is every reason for believing that this is now in process and presently interest rates will be within reach of the home builder. Moreover, capital in times of depression becomes timid, and real estate mortgages are the recourse of the timid investor.

LOCALIZED CONGESTION AND HIGH RENTS WILL YIELD SLOWLY

Study of the Wheeler tables seems to show that the accumulated shortage of buildings is not everywhere so serious as in some particular places. If the Hoover statement is correct and there has been an increase of only seven families for each hundred dwellings, neither morals nor health are in serious jeopardy. The increase of seven families is, however, not evenly distributed. That average means a menacing and intolerable congestion at many points with incapacity to pay as the cause, and an annoying congestion at other points with the desire of many people to live in the same section or neighborhood as the cause.

This is a common American trait comparable to the common desire to ride on the same train, or boat, or street car on which everyone else also desires to ride.

It will be noted that the accumulated shortage in Detroit and Cleveland cannot be serious in terms of present day conditions of prices and the necessity for national economy, but the shortage is everywhere serious in view of the increase of rents. Until the point of saturation of the building market is reached, rents will yield slowly and rents are too high. The return on new building investments is high and the return on old ones is out of all proportion to a fair profit. The rental yield is also out of proportion to the return on other investments. Under other less trying conditions this should draw funds toward building and ultimately work toward the new level. But prices and conditions in building have not yet been adjusted to permit more than a small beginning.

There are other factors at work. The movement cityward, so pronounced when factories were crying for labor at high wages, has been stopped or reversed. When automobile production was at its peak in Detroit in 1919-1920, there were more than 20,000 deserted farms in Michigan. The migration of negroes from the South to northern cities, caused great disturbance in residential districts of the latter. Many of the negroes have returned to their former abodes.

"For rent" signs began to reappear months ago in many cities. There has appeared a tendency for conditions to right themselves so far as is possible without the ordinary amount of building. In this respect then, at this time building is in the same position as everything else. The desire of all business men is to do business. The discovery of a remedy to aid or hasten the

work of ordinary economic forces is, then, important. This is the problem to which Congress, the Administration and innumerable organizations and individuals have addressed themselves.

BUILDING NOSTRUMS

As the causes for building inertia consequent on the war disappear, and building is not resumed or is resumed very slowly, new causes are assigned. These causes vary according to the whims or predilections of their proponents.

Before the National Convention of Real Estate Men in Chicago in July, Senator Calder gave final and particular stress to the lack of credit—to the unwillingness of bankers to make advances for building purposes. He abandoned coal, and railroad rates and other causes previously assigned. Scant attention was given to the reports of the legislative committees in New York or the proceedings in Chicago. The influence of illegal combinations of builders, price fixing, collusive bidding and distribution of contracts, and other dark methods was largely ignored. Labor, guilty of a very similar policy on the part of its leaders, was given a position of less influence on building than that of the bankers.

As is customary in such cases, the remedy for this dereliction on the part of the bankers was an amendment to the Federal Reserve Act. The Federal Reserve System is the port of call of all financial ships in distress. Senator Calder's discovery that national banks have two billions in savings deposits, of which only eight per cent is invested in real estate mortgages, is the foundation on which he bases his plea for an amendment to the Reserve Act giving the Reserve Board power to authorize the investment of the savings deposits of national banks in long term securities. The allegation that the banks have

not been making real estate loans is true in large measure. Money has been neither plentiful nor cheap for a long time. But bankers who have customarily made loans on real estate security have not been refusing loans. In many large cities money has been available for building. It may be mentioned that in Chicago several banks have been advertising for some months that they had funds for that form of investment. Similarly, there has been constant advertisement both in New York and Chicago of bonds secured by real estate mortgage. Undoubtedly, the banks so advertising make only conservative loans and are not interested to lend for construction purposes on a basis of repayment in "installments like rent."

However, a first hand investigation disclosed that even when the outcry against high rents was shrillest, the demand for real estate mortgage loans on terms that met the requirements of conventional safety was small. One large Chicago bank reported two applications for such loans in seven months, and made both. There was at the same time from its customers a demand for mortgages as investments which could not be satisfied. Similar reports came from other institutions, and from other cities.

On the other hand, it was possible to find hundreds of persons who not only wished to build but were waiting for better prices and more favorable conditions. Architects everywhere had pending orders. In the aggregate, there were hundreds of millions of dollars waiting until prices and conditions were favorable. These hundreds of millions are still waiting.

THE FEDERAL RESERVE ACT— A CURE-ALL

It remains only to discuss the probable influence of the proposed amend-

ment to the Federal Reserve Act on building, and otherwise. The present law permits national banks to lend a part of their time or savings deposits on farm mortgages or on real estate. That provision of the law was acceded to by its framers with great reluctance. Its supporters were ardent in their claims that such a provision would be most helpful to those desiring to build or buy homes. Its effect has been negligible. Theoretically, at least, the national banks are commercial banks. Their managers are not familiar with real estate mortgage technique. A commercial banker has an habitual horror of mortgages. Probably he should have.

Worse even than high rents or a shortage of homes would be an invasion of the integrity of the commercial banking system. Loans on farm or real estate mortgage should never have been mentioned in the Federal Reserve Act. To broaden the application of the existing provision is fraught with danger. The error of permitting national banks to do a savings business is becoming apparent. The abolition of that privilege would be a more pertinent recommendation than permissive or compulsory loaning of the savings deposits in large proportion on land mortgages.

CREDIT ONLY ONE ELEMENT IN A COMPLEX SITUATION

It is doubtful if easy credit would prove a stimulant to building so long as other conditions remain as they are. Interest rates have been high for many reasons. Americans have been forced to bid against a needy Europe for funds. Taxation has run up the returns demanded by investors. A shrinking dollar increased the demand for capital just as an expanding dollar will diminish such demand. Building enterprise has been outbid in the money market by industrial enterprise willing to pay seven to eight per cent for capital.

When other conditions have righted themselves, there will be credit for building. Other conditions *may* right themselves partly as the result of new laws or amendments of old laws, but it is more likely that changes will result from the return to more normal, social and business relationships. It is to be expected that there will be still more suggestions and still more disclosures of hidden forces working for high wages and prices, but in the end, when time has brought the foreseeable readjustments, it will be found that building has been subjected only to the common influences that attended war, plus, perhaps, an unusual degree of human chicanery.

Foreign Trade and the Economic Recovery of France

By DR. JOSEPH MONTEILHEF, Assistant Director, National Foreign Trade Office.
Translated by LANE W. LANCASTER, Instructor in Political Science,
University of Pennsylvania

THE whole sociological system of Herbert Spencer is erected on the opposition between a military civilization, the source of restraint, and a commercial civilization, the agent of liberty. The crisis which for six years involved the world in war has confirmed this theory. The State, threatened in its existence, has invaded every field of human activity, letting fall upon the people the heavy hand of the recruiter, seizing and requisitioning goods as it saw fit. But, as the British proverb goes, even if a gallows were erected at every wharf on the coast business would go on just the same. Instead of a gallows, we have submitted to prohibitive regulations sanctioned by fine and imprisonment, and, in the meantime, in the face of a thousand obstacles, our merchants have maintained our economic life. Today, during this period of transition which is one neither of war nor of peace, they are endeavoring as rapidly as jealously closed frontiers are opened to reunite the broken bonds of international relations.

France, under the menace of hostile armies which vexed her soil with terrible battles, was compelled to extend to the farthest limit the jurisdiction of the State, the effect of which always operates to restrict individual liberty. But this inflexible sovereignty imposed by circumstances was not in the nature of her institutions. As soon as danger was removed from beyond the Rhine, she was eager to release the close network of oppressive regulations. Being able to count only on exports to reestablish credit and discharge foreign debts, France stands in the first rank of

those nations which aspire for the suppression of those "economic barriers" condemned by a great American voice.

In this short study, we shall review first those measures taken during the war, some of which have survived. In contrast with the first period, the period following will appear liberal to those who would be tempted to consider it excessive in its monopolies and its prohibitions. We shall then examine the fluctuations in the commercial policy of France since the Armistice, with its alternatives of commercial freedom and protection dictated by the variations in exchange rates. Finally, we shall deal with the satisfactory results obtained by the institutions of economic expansion created or reestablished by a great reform minister, M. Clementel, who had the unique honor of receiving the title of Minister of National Economy and, what is still better, of justifying it.

COMMERCIAL POLICY DURING THE WAR

The war, by militarizing all the resources of the nation, brought about the dictatorship of the State acting as an economic even more than as a political unit. From the outbreak of hostilities, the government took Draconic measures to prevent the waste of national wealth indispensable to the victorious conduct of military operations.

These protective measures invariably resolved themselves into serious blows at commercial freedom, extending even to its complete annihilation; less than three years sufficed for this evolution which began August 2, 1914 and was completed by March 22, 1917.

These restrictions, originally directed towards the enemy, extended successively to neutrals and to the allies, every other consideration disappearing before the safety of the state.

Reasons of policy led the French government first to forbid its nationals to trade with nationals of the enemy powers. This was the object of the decree of September 27, 1914 and the law of August 17, 1915. Then, when Germany declared, at the end of March, 1915, that orders would be given to her submarines to sink every ship, even neutral, carrying any goods whatever, even non-contraband, destined for or leaving French or British ports, the Entente powers replied March 16, 1915, by declaring a commercial blockade of Germany. This rigorous blockade obliged the French Government to take strict precautions to assure itself that goods destined for such neutral countries as were neighbors of the enemy powers would not ultimately be reexported to our enemies. For this purpose special organizations were created such as the Swiss Society for Commercial Inspection, The Netherlands Overseas Trust (*Société Suisse de Surveillance Economique, le Trust Neerlandais d'outre mer*), the purpose of which was to guarantee to the Allied governments that goods received there were not reexported to enemy territory. Finally, to permit enforcement of the prohibitions against trading with enemy nationals, even when residing in neutral states, blacklists were prepared and published in the *Official Journal*.

PROHIBITIONS

So far as neutrals and Allies were concerned, exports were the first to suffer the effects of the war. In order to conserve the national resources for the needs of the army and to prevent their serving to revictual the enemy, the government was compelled to adopt

restrictive measures immediately in the case of foods and raw materials. Availing itself of a forgotten law of December 17, 1814, a survival of Napoleon's continental blockade, authorizing the government "to suspend in case of emergency the exportation of the products of the soil and of industry," it promulgated, beginning December 21, 1914, numerous decrees concerning each of the determined commodities as fast as the services concerned declared the necessity of prohibiting the export of such articles hitherto considered as sufficiently plentiful or of no military use. These prohibitions, however, were not absolute. The Minister of Finance might grant permits in individual cases or permanently in the case of the Allied countries. But legislative enactments were far less important than other factors, for exports were reduced by the shortage of labor, raw materials and coal, and especially by the crisis in the carrying trade caused by submarine warfare, from nearly seven billions of francs in 1913 to less than two billions in 1915.

On the other hand, imports were from the first greatly stimulated by the needs of national defense. Prohibitions did not appear until the struggle assumed the character of a test of economic endurance. Then the State faced the need of reducing foreign obligations in order to avoid aggravating the exchange situation, and to increase the amount of capital at its disposal. Moreover, by prohibiting the importation of luxuries, transport facilities, by that time greatly reduced by the submarine warfare, were reserved for war material from the United States, and the enormous advance in freight charges was checked.

A law of May 6, 1916, still in force in January, 1921, authorized the government to prohibit by decree the entrance of foreign goods or to increase the cus-

toms duties. Parliament, hitherto so jealous of its rights over the customs, contented itself by ratifying these decrees several months after their promulgation. After diverse partial measures, aimed especially at luxuries and alcohol, the government finally, by the decree of March 22, 1917, prohibited imports entirely. The temper of the people was gradually prepared for the principle of prohibition, which, if applied in its entirety, would have suspended the economic life of the country. Goods were arranged in three categories: (1) those enjoying a general exemption from the prohibition; (2) those prohibited except for exemptions granted upon the advice of a Committee of Exemptions. (*Comité de Dérogations*); (3) those whose importation was authorized under certain determined circumstances.

Some months later, the increasing difficulties of ocean transportation made necessary a closer coördination between the importing services and freight facilities. A decree of December 13, 1917 created an Executive Committee of Imports, which, acting in accord with corresponding bodies in the other Allied States, was to decide finally upon the imports to be admitted. At the same time, the Inter-allied Purchasing Board was created, which strengthened the tendency toward the concentration of private purchasing in the hands of centralized bodies under government control. Finally, the Allied Council of Maritime Transport established the program of transporting commodities admitted by the Executive Committee of Imports.

COMPTOIRS AND CONSORTIUMS

Thus, at the moment when the State, at the desire expressed by the United States, became the sole buyer for France, first for meats and fats and then for cotton, the decree of March 22,

1917 provided for each authorized contingent of imports a plan of pro rata distribution of indispensable commodities among the different industrial and commercial groups. The result was the concentration of incoming commerce in the hands of State-controlled groups known as *comptoirs* and *consortiums* to which all firms consuming raw materials were obliged to apply.

As the holder of imported merchandise, the *consortium* established a common price for domestic and imported goods, and then effected a distribution of goods among manufacturers based upon their production capacity in such a way as to preserve for each of them, in spite of the scarcity of raw materials, a part, however reduced, of their activity. The most important *consortiums* were those of cotton, petroleum, petrol and newsprint paper. The régime of the *consortiums* permitted a satisfactory solution of the difficulties growing out of the war, and at the same time furnished the basis for an economic organization which will correct the excesses of individualism by the accepted discipline to which the members of a syndicate ought to submit themselves.

COMMERCIAL POLICY OF THE TRANSITION PERIOD

By one restriction after another, the State, dominated by the necessities of war, had reduced to naught the freedom of foreign trade which before August 1914 knew nothing of the insurmountable obstacle of prohibition and considered as its only barrier customs duties which were easily overcome. The Armistice did not immediately restore this happy era. For more than a year after November 11, 1918, France experienced that intermediate period between war and peace. Then, she was forced constantly to watch over the grudging execution of a treaty of peace which was accepted by the van-

quished only under the constant threat of force. Finally, more than half of Europe, from the Adriatic to the Baltic, still heard in December 1920 the clash of arms. This fundamental fact must be kept constantly in mind in making a fair estimate of the government's slow return to commercial freedom, and in appreciating at its real value the considerable effort of the French manufacturers.

Control of exports. In the period of depression following the war, the whole commercial policy of the government was directed towards economic expansion. Thus by successive measures of January 20, 1919, July 12, 1919 and August 28, 1919, in order to relieve the crisis of the high cost of living, the embargo on exports was finally restricted to the principal food products which continued to be very scarce, and to indispensable raw materials to the extent that these latter could not be obtained in quantities sufficient for national production. In January 1921, the commodities provisionally on the prohibited list were fresh meats, fats, milk, eggs, cheese, butter, cereals, fodder, fertilizer and pitcoal. However, these prohibitions were not absolute. The administration having control of the product in question might authorize its export upon the payment of a fee. Finally, to encourage them, all exports were exempted from the tax of 1.1 per cent on the volume of business levied by Article 72 of the law of June 25, 1920.

The export of capital and transferable securities was subject to a more rigorous and minute regulation by the law of April 3, 1918 which is to remain in force until January 1, 1922. Travelers abroad are permitted to take with them only 5,000 francs in French or foreign banknotes. The export of gold is formally prohibited. An allowance of ten francs silver is permitted.

For fiscal reasons as well as for the preservation of the artistic patrimony of France, a law of August 31, 1920 made subject to administration authorization, the export of "objects of a national, historical or artistic interest." The provisions of the law apply only to objects dating prior to 1830, to the works of painters, engravers, designers and sculptors who died more than twenty years before the date of export as well as to objects secured from excavations in France. These articles authorized to be exported pay a duty of 15 per cent *ad valorem* up to 5,000 francs, 20 per cent between 5,000 and 20,000, and 25 per cent above 25,000 francs.

Control of imports. Immediately following the Armistice, on November 25, 1918, the Minister of Industrial Reconstruction, M. Loucheur, stated his willingness "to assure the progressive return to commercial freedom for the various needs of industry." But on February 14, 1919, the same minister declared necessary the provisional maintenance of the prohibitions on imports because of the fact that "it is the whole problem of foreign exchange that dominates that of imports." The commercial policy of the government, inspired by a desire for freedom and condemned to restrictions, was compelled to adjust itself to the varying circumstances of the international economic situation, whence arises an impression of vacillation: liberal tendencies in 1919, the extension of prohibitions in April 1920, return to liberalism in July 1920, the restrictions increasing as exchanges fall. We shall examine these fluctuations of policy, and at the same time point out another characteristic of the evolution, the progressive abandonment of prohibitions offset by a moderate increase in customs duties, the protective effect of which was lost by a considerable increase in prices.

BRIEF RÉGIME OF LIBERALISM

In the weeks which followed the war, the feeling of relief was keen and widespread; there was assuredly an illusion that the régime of constraint would soon come to an end. A notice which appeared in the *Official Journal* for December 25, 1918 declared: "Every effort will be put forth to return as soon as possible to freedom in commercial transactions." And indeed Parliament and the Government entered resolutely upon this course as is witnessed by the law of January 20, 1919, the decree of the same day and the order of March 19, 1919 which exempted from the general prohibition on imports (decreed March 22, 1917) 350 articles out of 654 on the tariff schedules. The prohibition now applied only to yarn and textiles, metal and woodwork, miscellaneous manufactured articles and certain raw materials and foodstuffs, cotton, wool, flax, paper, metals, refrigerated meats, etc., over which "control was maintained to permit payments abroad for the best interests of the country."

Beside these general exemptions, particular exemptions from the prohibitions still in force might be granted by the competent administrative authorities who showed themselves to be quite generous. When the *consortiums* created for the centralization of foreign purchases were for the most part disbanded or transformed into private companies, the distribution of such wool and cotton textiles as were authorized to be imported, was made by the corporate groups interested.

This rapid return to commercial freedom was confirmed by various decrees in May, June and July 1919. On July 7, 1919, the list of prohibited articles of imports contained no more than a dozen items on the tariff schedules. Even these few interdictions were

solely motivated either by the existence of organizations charged with the distribution of imports (the National-Press Office in the case of newsprint paper), or, in the case of cereals, by a veritable purchasing monopoly conferred upon the State. The statement preceding the decree of June 13, 1919, which removed most of the prohibitions, justified this decision in the following words: "This measure, which is in accord with the vote of Parliament, constitutes a decisive step in that return to commercial freedom demanded by public opinion, and is adopted in order to counteract the high cost of living by assuring a more abundant supply to the home market and by stimulating domestic production."

In less than a year after the Armistice, then, France had returned to a régime of almost complete liberalism. But this happy situation was ephemeral, since most of the other states did not lay aside so hastily the economic armor of war. In the course of the year 1919, the value of our imports rose to nearly thirty billions of francs, while exports scarcely reached nine billions. The result was an unfavorable trade balance of twenty billions and a disquieting depreciation of 70 per cent in the value of the franc in international exchange.

This critical situation called for heroic measures. The decree of April 20, 1920 prohibited absolutely the importation of something like 200 articles on the tariff schedules. The statement of the motives for the new decree revealed the gravity of the crisis. "We cannot conceal the fact," said the ministers, "that the question is a vital one, for if we continue unwisely to make useless imports we shall end shortly by being unable to obtain abroad the credit needed to purchase necessary foodstuffs and raw materials. It would be superfluous to insist upon the economic and social consequences of such

a redoubtable eventuality. The study given to the matter by the departments concerned has demonstrated the necessity of prohibiting the importation of a whole series of luxuries and indispensable articles."

In truth it was rather a question of rousing public opinion than of averting instantly a general crisis. It was evident on reflection that the prohibited articles, although constituting a large proportion of the total number on the schedule, gave rise to comparatively few transactions, less than a billion francs for thirty billions of imported goods. Moreover, it was necessary to include in the calculations the treaties with Italy, Switzerland and Portugal which obligated France to admit a certain number of their products.

This severe régime, however, was even shorter-lived than that of relative freedom which preceded it. It lasted exactly three months and was ended by the decree of July 22, 1920 still in force, which keeps on the prohibited list only about twenty articles and those subject to individual exemptions. This was in effect a return to the régime instituted July 7, 1919. The consumer, upon whom the Minister had wisely urged economy, began more or less spontaneously to practice an abstention which did not distinguish between imported and domestic products and which brought about a fall in prices in the home market. At the same time, the unfavorable exchange stimulated exports beyond the most sanguine hopes. The government, satisfied with its warning of April, returned in July to the liberalism which it had not ceased to profess in its official declarations.

THE TARIFF AGAIN ON A PROTECTIVE BASIS

Complete freedom of foreign trade could not be reëstablished, however,

except by placing the tariff on a protective basis again. The formidable rise in prices had effectively deprived it of its protective nature in the case of the specific duties which did not follow the variations in value of the articles subject to these duties. For this reason the government was compelled to avail itself of the power given it by the law of May 6, 1916 to increase customs' duties. In reality it was not a question of increasing duties so much as of restoring their pre-war efficacy. The policy of the government was clearly and vigorously set forth in the statement which preceded the decree of June 4, 1919.

"If freedom for imports," said MM. Clementel and Loucheur, "is an important element in commercial recovery, it must not be lost sight of that the most powerful factor in a general fall in prices exists in national activity, the source of production. Such activity, however, would run the risk of being paralyzed at a time when every effort should be put forth to reëstablish the normal life of the country, if the removal of restrictions on imports, which opens our markets to foreign competition, is not counteracted by a protective tariff. Failing sufficient protection, free importation would be the death warrant of numerous industries. The existing tariff does not provide such protection since the increase in prices has made it for most commodities merely a nominal tax without any compensating effects.

"While circumstances compelled us to call in, at great expense, the holdings of foreign securities which had so profoundly disjointed our commercial balance, this step did not secure an immediate remedy, since production was destroyed in the devastated sections and, to a great extent, suspended by the force of circumstances in the remainder of the country. For the rest,

the restrictive régime, to the extent that it applied to imports, reduced considerably the influence of foreign competition. Such competition could not continue. Our exports at that moment were reduced to one-sixth of our imports, and we would have courted economic ruin had we not immediately taken measures to restore production so that the country might, so far as was possible, free itself from the heavy tribute paid abroad and retrieve by sales abroad a financial situation, the difficulties of which were obvious.

"This is why we consider a provisional tariff a necessary corollary of free importations, pending the tariff revision under consideration.

"We say provisional because it is not so much a question of raising duties as of restoring the equilibrium destroyed by price increases in such a way as to give to French industry the minimum of protection which it enjoyed before the war. This plan will appear less extreme when it is remembered that industry finds itself in the paradoxical situation of being less protected than in normal times, and of being helplessly exposed to a foreign competition which has lost none of its resourcefulness.

"The specific duties at present in force being so calculated by the legislative branch as to represent a given percentage of the value of imported commodities, this percentage will be reëstablished."

RÉGIME OF COEFFICIENTS

In order to reëstablish tariff equilibrium destroyed by price increases, the government first, June 14, 1919, superimposed on the normal duties, *ad valorem* surtaxes which equalized duties on the pre-war basis. This was to fall into all the vexations of *ad valorem* duties which revealed themselves immediately in practice. Hence,

as early as July 8, 1919, a decree established coefficients which represented for the various dutiable articles included in the reform the relation between the price of goods in 1913 and their price in 1918. But "the government being anxious to avoid as far as possible all the causes for rising prices and resolved to signify very distinctly its intention not to stabilize existing prices which are too often the result of mere speculation, has arbitrarily adopted the figure 3 as the limit of the coefficients." In practice most articles had applied to them only the coefficients 1.2-1.4-2-2.3-2.6, etc. Moreover, determined to avoid every pretext for a rise in the price of necessities, the government exempted from the surtaxes foodstuffs, natural or prepared, as well as raw materials and those partially manufactured articles which were essential to production.

Finally, the government undertook to follow closely the trend of prices, and, in case of a decrease, to reduce the coefficient so as to preserve constantly a fair relation with pre-war prices. For this purpose, an interministerial commission was organized whose duty it was to revise periodically the table of coefficients, that these might express as accurately as possible the relation between existing and pre-war prices. Up to the present, conditions in the international market have not permitted any change in the coefficients. On the contrary, when the prohibition on imports of luxuries decreed in April, 1920 was removed in July, certain of these articles, truffles, carpets, etc., were subject to coefficients of 4.5 and even 6.6.

This régime of coefficients was still in force January, 1921 for Parliament, slow to make use of its prerogatives, on December 31, 1920 renewed for one year the authorization given to the government to raise the customs duties by decree. But the right to decree

prohibition of imports and exports was taken from the government and restored to Parliament. The government with the approval of Parliament refused to fix the customs in gold. This system was adopted by a large number of European States and was characterized by premiums ranging from 200 per cent in Italy to 4,000 per cent in Austria. Since July 1, 1920, imported commodities have paid independently of customs duties a domestic tax on the volume of business in the form of an *ad valorem* duty ranging from 1.1 to 10 per cent in the case of luxuries. It is really not a tax on imports but a consumption tax, the legislators wishing to reach foreign goods to the same extent as domestic products.

Certain products, such as breadstuffs, coal and petrol, by reason of their vital importance from the social as well as the economic point of view were subjected to special treatment. This régime was characterized by rigorous State control which extended to price-fixing and even to a practical monopoly of buying and importing. Justified by war-time necessities, it extended into the period of transition preceding the return to commercial freedom.

STATE INTERVENTION IN BUYING AND SELLING

The Minister of Commerce, armed with the power to requisition, was charged with purchasing cereals and breadstuffs both in France and abroad and with distributing them on the basis of consumption needs, by a system of rationing. The State found itself in this dilemma: Either it must increase by considerable proportions its financial assistance to the wheat-growers which had already meant a sacrifice of five billions of francs, or it must see the price of bread mount to such a figure as would threaten the stability of the social order. The government hoped

that during the present year the forces making for reduction in prices would have some play; in fact it asked for and obtained an extension of this régime only until August 1, 1921, the next harvest. In asking for this extension, the Minister of Commerce declared: "The intention of the government is to reëstablish commercial freedom but, of course, on conditions which will not provoke social unrest nor increase the burdens of the State."

As to coal, the price of this commodity which was 20 francs per ton in 1914 was more than 400 francs in 1920. As a result of the systematic devastation by the enemy, the output fell off from 41 million tons to 22 million, making necessary the importation of 48 million tons. Since the selling price was fixed at the highest net cost of production, this price would have been determined, not by the price of French coal, 87 francs at the mines, but by the price of the English product which had reached 500 francs. The government, therefore, intervened and created an organization—the National Coal Bureau—for equalizing prices. This bureau controls the importation of coal and rations it to consumers. Equalization of price was secured by applying surtaxes to French coal and by granting abatements to foreign coal. An improvement in stocks of provisions due to Germany's execution of the Spa agreement, and to the welcome competition between English and American coal (the importation of the latter increasing from 13,000 tons in January 1920 to 700,000 in November) gives reason to anticipate the early disappearance of State intervention in buying and selling. The Minister of Public Works announced to the Chamber of Deputies at the session of December 30, 1920: "I have shown by my acts that I intend to return as soon as possible and in the

greatest measure possible to free trade in coal."

As for petrol, both its purchase and sale were monopolized by the State under the cover of a *consortium* composed of the ten private companies which before the war were practically the only intermediaries between the petrol trusts and the French consumer. The State acted through the office of a Commissary General, a function in which Senator Henry Beranger rendered signal services. The French Government negotiated directly for purchases of petrol abroad. Once imported, the State resold it to the *consortium* at a trifling increase over net cost. The *consortium* then distributed it among its agents who were unregulated in disposing of it in the interior.

This régime will certainly end during the present year but it is not yet known what will take its place. The government after having declared itself favorable to a monopoly in buying and importing has at last proposed a law providing for "controlled liberty." The following conclusions presented by M. Lamoureaux in the name of the Committee on Public Works of the Chamber of Deputies would give us reason to believe that Parliament may not follow the government:

The régime of liberty has failed. It is this régime which in the midst of war left us without production and without shipping and then showed itself powerless to supply us with either. The State as producer and trader: this is the régime of complete monopoly. This also has failed. There remains one régime, the existing one, which comprises the monopoly of buying and importing but which sells imported goods through a consortium. This régime has proved itself. Improvised in the midst of war, it has met all the needs of France. Under it important advantages have accrued to the State. It safeguards the rights of the consumer by the government's ever-present control of prices. Let us keep it.

The evil consequences of the war continuing beyond all reasonable expectations, the commercial policy of France remains in an uncertainty which is justified by considerable price fluctuations and universal depreciation of currency. In reality, the total import duties paid in France amount to from 5 to 30 per cent of the value of the goods imported, which is certainly a moderate increase in comparison with the results of most foreign tariffs. But the effect of exchange fluctuation on imports offsets the effect of strengthening the tariff. Take for example an article whose intrinsic value expressed in gold is a hundred francs. The mere fact that its value is expressed in foreign money causes its price to rise to 300 francs in New York and to fall to 25 francs in Berlin. The obstacle to purchases in the United States lies in the mere price of the commodity and a tariff is superfluous, whereas, in the case of Germany, the price in effect places such a premium on imports as to annihilate the tariff.

The exchange situation, then, is that insurmountable barrier, which, in the vivid imagery of Mr. Lloyd George, repulses famished German customers from the windows of glutted English shops, while beyond the Rhine it constitutes an enticing bait to English buyers. Like the God of the Bible, *Eauxiventes implevit bonis et divites dimisit inanes*. In modern language, it is a case of nations suffering from the "indigestion of riches." The remedy consists in an intelligent and generous submission to the laws of international solidarity. In the presence of such a potent and widespread phenomenon, the régime of tariffs loses its importance for the time being. Therefore, the French Government was wise in adopting provisionally the system of coefficients. On December 20, 1920, the Minister of Commerce in the face of a protectionist

offensive undertook to follow this system "with prudence and moderation."

However, the government was compelled to raise the general tariff considerably in order to give a wider latitude to negotiators in view of the proposed conclusion of commercial treaties. Such was the object of the decree of March 28, 1921. But the United States having been expressly excepted in the case of such of their products as were subject to the general tariff, this increase was applicable in reality only to those countries which were to be refused the minimum tariff. This measure, then, was completely effective only in the case of Germany from which imports into France were favored by the depreciation of our currency entirely out of proportion to the increase in the general tariff.

But wise foresight is the best provision for the future. Hence in the midst of hostilities, the government, at the happy suggestion of M. Clementel, Minister of Commerce, took under serious consideration the future commercial policy which would be adopted as soon as a stable peace would permit it. On April 23, 1918, M. Clementel made known in an official note, the government's intention to denounce "those commercial conventions containing the 'most favored nation' clause or tariff agreements—in a word, every agreement of such a nature as to prevent the enforcement of the new commercial policy under which France expects to place herself."

These denunciations becoming effective all existing commercial agreements were to be extended for periods of three months at a time only, until a new agreement should be reached. So far, only one agreement has been signed, that of November 4, 1920 with Czecho-Slovakia. Several others are being negotiated, notably with Poland, Canada, Portugal and Belgium.

The government in making these agreements remained faithful to the general principles underlying the creation of the tariff law of 1892, which, after slight change made in 1910, is still in force. The law of 1892 was characterized by the principle of autonomy. Parliament was free to change rates and was not bound by commercial treaties, while the government was only permitted to conclude conventions which might be denounced on twelve months' notice. The principle of autonomy had to be reconciled with the necessity of granting certain reductions to the contracting powers. For this reason, a double tariff was established: a general tariff applicable in principle to all foreign nations and a minimum tariff favoring those nations which extend like advantage to us. There was an average difference of 50 per cent between the two tariffs.

The tariff régime, uniform in spite of very different situations and constantly alterable, was lacking both in flexibility and stability. The negotiators were held to a program too rigid to permit the granting of concessions comparable in importance to the counter-proposals which varied from two per cent in Belgium to thirty per cent in the United States. They were compelled to apply the minimum tariff to countries not in a position to extend like favors and the concession of this tariff became a precedent which was invoked against us in subsequent negotiations. It became a matter of considerable importance, therefore, to be able to consent to reductions from the general tariff comparable to those which might be conceded to us in return. M. Clementel, Minister of Commerce, sought this result and obtained it by the law of July 29, 1919. This law authorized the government to negotiate with foreign powers for a reduc-

tion of duties calculated in percentages of the difference between the general and the minimum tariff, such reductions to be made in return for like advantages.

It is to be noted that both the actual and the prospective reforms effected only a technical readjustment in the tariff of 1912, and, except in the case of the system of coefficients rendered necessary by increases in prices, did not tend towards a systematic increase in duties. The more influential manufacturers understood that the tariff system was not the most important factor in the economic development of a people. This was so true that during the crisis many of them refused to ally themselves with the extreme protectionist program. And the Senate Tariff Commission, in renewing the authorization to the government to use coefficients, declared through M. Noël:

"Do we wish to close the frontiers? No. Tariff measures ought only to be such compensations to the agricultural and industrial interests as will permit them to meet their competitors on equal terms—the correctives of varying economic situations."

But France had another motive more noble than her immediate interests for not abandoning herself to protectionism. France is essentially peaceful. She knows that political discord may arise from economic rivalries. It will be recalled how the discussion in Parliament in 1910 concerning increases in the tariff ended by an impressive vote in favor of progressive and universal tariff reduction. On the proposal of Juarès, the Chamber of Deputies adopted 521 to 1 the following motion: "The Chamber calls upon the Government to propose an international conference of the Powers interested, looking to a gradual and simultaneous reduction of tariffs."

INSTRUMENTS OF COMMERCIAL EXPANSION

In the economic struggle for freedom of domestic trade and the opening of foreign markets, the tariff régime is merely a defensive arm; the offensive is to be furnished by instruments of commercial expansion, able to coördinate the work of the various public services and to support private initiative which is to remain predominant. Thanks to the patience of M. Clementel, France now possesses under the law of August 25, 1919, a program of economic expansion comprehensive enough to meet all the requirements of her manufacturing and commercial interests.

The Ministry of Commerce and Industry was immediately reorganized so as to include the following: a division of commercial expansion and credit; a division of commercial agreements and a division of commercial information.

The ministry, thus reorganized, is able to know the needs of the country, to determine the principles of a national economic policy and to put these principles into practice with the support of the group of interests known as the General Confederation of French Production (*Confédération générale de la production française*) and the regional groups constituted in the economic districts (*régions économiques*).

NATIONAL FOREIGN TRADE OFFICE

But the work of a ministry is one rather of general supervision than of direct collaboration with producers. The latter duty was reserved to the National Foreign Trade Office, created in 1898 under the auspices of the Paris Chamber of Commerce, and made a national institution by the law of August 25, 1919. This official institution has for its purpose in the words of its charter "the furnishing to French

manufacturers and traders such commercial information as will be serviceable in developing foreign trade and extending markets in foreign countries and in the French possessions." This information is collected by correspondents, residing abroad, either by general investigations or by special inquiries; it is then carefully classified and placed at the disposal of interested individuals or groups. The office has been very successful in making available to domestic producers useful information concerning foreign markets and in discovering at home those able to profit by such information. It does not confine itself merely to supplying information; in a very real sense it makes possible the practical use of this information.

In order to give to the National Office the maximum influence abroad the government created in the most important commercial countries French Foreign Trade Offices. It is the purpose of these offices to aid manufacturers and traders in building up new relations abroad, and in developing further those already existing, especially by the following practical methods: the showing of samples, the choosing of representatives, the distribution of catalogues, the adjustment of disputes, etc. Offices at present functioning are those at London, Madrid, Rome, Zurich, Amsterdam, Bucharest and Stockholm and at Alexandria, the last, with agencies operating at Beirut, Constantinople, Smyrna, Saloniki and Athens, serves the near East. The National Office in France is the headquarters for those abroad.

COMMERCIAL AGENTS AND ATTACHÉS

The National Foreign Trade Office distributes information whose value arises largely from the value of its own investigations. But it ought, rather, to work almost entirely in conjunction

with our diplomatic agents, upon whom the proud tradition of the French kings, not "to behave as shopkeepers" too often rests heavily, and with our consular agents, more concerned with business and invariably competent, but absorbed in their administrative duties. The realization of the need of specialized experts in commercial information resulted in the creation (by the law of August 25, 1919) of a number of posts of commercial agents and attachés.

The attachés are commercial advisers to the embassies and legations to which they are assigned as well as inspectors, acting for the Ministry of Commerce, of all the organs answerable to the latter department: agents, offices, Chambers of Commerce, etc. The commercial agents are charged with the study, protection, and extension of French commercial interests within their jurisdictions. They are prepared to give instant and exact information on all practical questions concerning foreign trade. France now has attachés at London, New York, Rome, Madrid, Bucharest, Shanghai, Buenos Aires and Rio de Janeiro, and agents at Turin, Belgrade, Budapest, Prague, Frankfort, Vienna and Montreal. These posts will be increased in number as rapidly as the budget permits.

The enumeration of these organs of commercial expansion would be incomplete if no mention were made of the French Chambers of Commerce created in numerous foreign countries. As rallying points and centers for the coördination of efforts, these possess an organization capable of rendering valuable service to exporters. Finally, the Foreign Trade Advisers (Conseillers du Commerce Extérieur,) whose powers are to be enlarged will take a more active part in fostering exports. At the urgent suggestion of M. Clemenceau, President of their National Committee, they have founded regional

agencies, which, placed at the sources of production, will be able to direct abroad to the best advantage, commodities not absorbed by the domestic market.

The information furnished by these various agencies will give security to foreign trade. This security, however, would not be complete without a banking organization especially adapted to its needs. Before the war, manufacturers interested in exporting their products complained of being unable to secure long-time credits necessary for selling abroad. The banks of the mother country granted credit solely on the basis of the appearance of the seller without taking account (because they were uninformed) of what the buyer might be able to offer. There resulted from this serious deficiency a manifest inferiority, notably in comparison with England and Germany who were better furnished with banking facilities.

In order to remedy a situation so prejudicial to the vital interests of the country, M. Clementel, seconded by MM. Charneil and Berrogain, brought about the creation of a French National Foreign Trade Bank (*Banque Nationale Française du Commerce Extérieur*). This bank was founded by private initiative but was aided financially by the State and operated under its control. By the law of October 23, 1919, Parliament sanctioned an agreement entered into between the Minister of Commerce and Finance and the founders of a joint stock company capitalized at 100,000,000 francs. The company was organized at meetings held February 20th and March 4th, 1920 and since that date the bank has performed the functions authorized by its rules. It has at Paris facilities for the mobilization of long-term credit and has established branch offices in each important country abroad to

which exports are made. These latter are especially charged with the duty of presenting and collecting drafts and bills of credit, as well as receiving and verifying goods accompanying bills-of-lading, and, in general, of handling all information of interest to the National Bank.

TRANSPORTATION AND FOREIGN TRADE

Finally, foreign trade must have at its disposal the means of transportation which will assure as far as possible the distribution of its products. On the railways tariff reductions of from 10 to 25 per cent were made in the case of commodities intended for export regardless of the nationality of the consignee. But the most important rôle fell upon the merchant marine which for many reasons has not played its part perfectly. This is due largely to the necessity of paying foreign ship-owners for carrying services. This fact necessitated in 1913 an annual tribute of 500,000,000 francs which increased during the war to ten billion francs annually on the government's account alone. It is true that during the same period the submarine warfare reduced our merchant fleet from 1,922,000 tons to one million. But since the Armistice the government and the ship-owners have put forth efforts which promise a veritable régénération. As a result of contracts signed by the Minister of Merchant Marine in 1918, important purchases in England and the United States, the partial recovery from Germany of ships sunk, and the renewed activity of the dock-yards, the French fleet has at present a tonnage of three millions, one million tons in excess of the figure for 1913. By the end of three years, France will have at her command a fleet of five million tons which is considered necessary in view of her foreign trade and colonial relations.

As in the case of foreign commerce, the State adopted towards the merchant marine a policy of freedom at home and of equal treatment of ships entering ports regardless of their nationality; even though in the latter days of the war the government had ordered the general requisition of the merchant fleet, it has just determined upon the liquidation of that part of the fleet still under its control.

RESULTS OBTAINED

We must now see this commercial policy with its two phases of protection and expansion in action and ascertain its results. It is the rôle of governments merely to set the stage and to put it at the disposal of the actors, who in this case were our producers. The brunt of the task fell upon the latter. To them is due the credit for the work accomplished.

In France, particularly, the task was difficult and its performance admirable. Because of the complexity of international relations, there is doubtless not a country in the world which has not either as belligerent or as neutral felt the evil consequences of more than four years of war. But whereas the more favored have experienced only functional troubles, France has suffered the loss of her own sons and her richest provinces; two million workers in their prime were killed or mutilated, ten departments systematically ravaged.

The French producer, already weakened in vital force, is of all the most handicapped in the struggle for world markets; the war imposed upon him a debt of two hundred billions of francs, the arrears of which amount yearly to ten billions, and a budget of forty-four billions, of which twenty-four billions only are covered by revenues, the remainder representing a debt which the debtor continues to avoid. To support

a like burden without weakening constitutes a trial without precedent in history. Hitherto a laborious nation, fortified by her political experience against the mirage of social revolution, France has learned to bear courageously the most difficult situations; during the war the people paid spontaneously into the Bank of France, 2,300,000,000 francs in gold, which aided in correcting the excess of paper currency; they are paying annually twelve billions more of taxes than in 1914; they have subscribed to six war loans to the amount of 87 billions of francs.

The French taxpayer, having performed this duty, prevented the ruin of the State in the shelter of which French manufacturers and traders carried on their activity. The latter, since the armistice, have taken up their work in a hostile world which has returned very slowly to normal conditions of international trade. During the whole of 1919 more than half of Europe owing to the persistence of war-time regulations was closed to French goods; relations with Germany were not reestablished until January 10, 1920, while Russia is still a closed world to regular transactions. Moreover, many countries returned to the family of nations only to close their frontiers by sumptuary laws to articles of luxury which are essentially the products of France.

It is important to recall these persistent obstacles to appreciate at their true worth the efforts made by French exporters. Their exports which fell from 6,880 millions in 1913 to 1,937 millions in 1915 rose to 8,713 millions in 1919 and will probably amount to 22,600 millions for 1920. This tenfold increase in five years is prodigious. Fortunately it has been accompanied by a reduction in the disparity between exports and imports. Before the war, the excess of imports was ordinarily from 20 to 25 per cent, a normal

figure in old countries. The disparity reached 372 per cent in 1918; it was reduced to 242 per cent in 1919, and to 40 per cent in 1920.

Foreign commerce, having made an excellent beginning, will therefore be able to contribute to the amelioration of the financial situation which became serious only as a result of the enormous increase in international transactions at a time when credits abroad were diminishing. Indeed, the financial situation will be definitely stabilized only when Germany loyally agrees to assume the payment of heavy reparations. But this prime condition of a stable peace being fulfilled, only increased exports will permit the reestablishment of equilibrium of credits and foreign debts.

This formidable effort expressed by ten-fold exports in five years will be in vain if imports increase in the same proportion. Fortunately, this has not been the case, imports increasing from 11,036 millions in 1915 to 29,778 millions in 1919 and approximately to 34 billions in 1920. This increase is only three-fold compared to one of ten-fold in the case of exports. Even this reduction, however, has meant a deficit in trade balance of 20 billions of francs in 1919 and ten billions in 1920. This unfavorable balance lowers exchange rates, which in turn causes higher prices.

CRISIS IN RAW MATERIAL

Now the increase of prices in the home market has had the inevitable result of tripling prices for raw material which are the basis of all industry, the "key products" as the English say. The French are paying for coal, wheat, wool, cotton, oil, etc., three times their real value in the world market, with the resulting enormous totals expended in 1919; for coal, 2,670,000,000 francs; cereals, 2,348,000,000; wool, 1,235,000,-

000; cotton, 1,760,000,000 and oil, 648,000,000. The utmost activity on the part of domestic industry only tipped farther the scales already so heavy with imports. The following are the figures for 1920; coal, 3,600,000,000; cereals, 2,800,000,000; wool, 2,330,000,000; cotton, 1,500,000,000 and oil, 1,100,000,000.

Thus for only five products, imports, necessitated by the essential needs of industry, rose in a year from 8,601,000,000 to 11,300,000,000 of francs. The practical question for French industry and French foreign commerce resolves itself into one of restoring a normal supply of raw materials. This is so true that the ten billion unfavorable balance of 1920 corresponds approximately to the increase in the value of raw materials. The needs of France for raw materials for her industries increased from five billion francs in 1913 to fifteen billions in 1920. There is another manifestation of this acute crisis in raw materials which is more significant, since it is expressed in terms of the quantity of goods exported. When exports of manufactured goods had, thanks to the activity of our manufacturing and trading groups, almost reached in quantity the figure for 1913, exports of raw materials remained at only half the pre-war amount.

AMERICAN CONTROL OF SITUATION

The principal factor in the crisis consists, of course, in the dearth of raw materials. This being understood, France is obligated to return to her purveyors, chief among whom is the United States, more than half a billion francs for meat and fats, more than a billion for cereals, 1,330,000,000 for cotton, more than 800,000,000 for oil, etc. M. Clementel understood this when, in the course of the discussion of the Treaty of Versailles, he said in the Chamber of Deputies, September 16,

1919: "There is every evidence that from the point of view of economic and financial recovery, it is America who holds the key to the situation."

But at the same time, the Minister of Commerce recalled the disappointment he had experienced in his attempt to treat with the holder of the precious key. Between the Armistice and the Peace Conference, he had exerted himself to secure agreements with England and the United States to maintain the interallied organizations dealing with raw materials. He was fortunate enough to conclude an important agreement with Lord Reading by the terms of which, he said, France "obtained the assurance of a supply of raw materials in sufficient quantity and at a price equal to that paid by England." But this agreement was to be enforced only in case the American Government undertook a similar engagement. The latter agreement was not realized and therefore the Franco-British treaty lapsed.

President Wilson, in neglecting to build his idealistic structures on sound economic foundations, erected a precarious work which was incapable of practical realization. France, thanks to her extensive resources, both national and colonial, exploited by an industrious

population, is able to avoid economic domination since the era of monopolies in raw materials is past; she is able to find cereals, meat, cotton and oil without being subject to the terms of a monopolist; too proud to be dependent, she will be able by a liberal commercial policy to submit herself to the laws of interdependence which national economy demands.

In order to bring to a satisfactory conclusion this work of coöperation, France will be happy to go forward in complete accord with the United States to achieve a truly beneficent peace, just as she has gloriously concluded the war. This is more than a hope for France; it is a certainty for her, since she has placed her trust in the solemn promise made by the American Government in September 1916: "It is manifestly our duty to seek the service of humanity by reserving our strength and our resources for the difficult and anxious days of reconstruction and recovery when peace comes."

The days of a peace which is uncertain both at home and abroad are inconceivably anxious and difficult. It is the part of the United States to shorten these days by contributing to the economic restoration of the world.

Public Finance in Ancient India

By PROFESSOR BENOY KUMAR SARKAR

Member of the National Council of Education of Bengal and Director of the Panini Academy of Allahabad, India

BUDGET making is an essentially modern institution. It is only since the time of Napoleon that regular estimates of receipts and expenditures have been yearly prepared in France.¹

¹ Palgrave's *Dictionary of Political Economy* (Art. on "Finances-France") Volume II, p. 68; Leroy-Beaulieu's *Traité de la science des finances*, Volume II, pp. 11-12 (8th Edition).

In spite of the comparative abundance of reliable data no ingenuity of modern research has been able to reconstruct the sheet of liabilities and assets of the Roman Empire for any period, but the administrative history of Hindu India is yet in its non-age. It is out of the question, therefore, to attempt such wide guesses about the

annual expenses even of the Maurya Empire (*B. C.* 322-185), for which information is more plentiful than for others, as has been done in regard to the Athenian state by Bökh²; or about the total revenues as has been done in regard to the Roman Empire by Gibbon and Guizot³; nor is it possible to test the fiscal policy of Hindu states by the modern canons of taxation, especially on the complicated questions of justice, ability to pay, or equality of assessment.

A LAY BALANCE-SHEET (c 640 *A. D.*)

A contemporary account of the finances of the Vardhana Empire (606-647) is furnished by Hsien Tshang, the Chinese state guest of Harsha. It is said that forced labor was not exacted by the government. When the public works required it, labor was exacted but paid for in strict proportion to the work. Those who cultivated the royal estates paid a sixth part of the produce as the share of the state. The river passages and the road barriers were open on payment of a small toll. In regard to public expenditure there are said to have been four charges on the private demesnes of the crown. The first charge was the management of the affairs of state and the provision for sacrificial offerings. The second was for providing subsidies for the ministers and chief officers of state. Honorariums for men of distinguished ability constituted the third charge, and the fourth was religious charity. Altogether, in the Chinese scholar-pilgrim's opinion, the taxes on the people were light, and personal service required of them was moderate.⁴

Evidently we have here the material for a very elementary balance-sheet,

much too naïve for an imperial organization⁵ based as it was on the triumphs of *dig-vijaya* (conquest of the four quarters of the world) and military aggression⁶ no less than on the "victories of peace." The reporter was a layman and naturally failed to notice the "sinews of war" that operated the administrative machinery of *pax sârva-bhaumica* (peace of the world-empire).⁷ It is on such facile statements about "light taxes" and "religious charities," however, that students of comparative politics in the nineteenth century used to found their estimate of the Hindu political systems. Today the states of old Asia are treated by scholars more or less in the same light as the feudal kingdoms of medieval Europe; that is, as organizations modeled on a private household, the domestic establishment of the ruler.⁸

SOUTH INDIAN REVENUES (c 900-1300 *A. D.*)

Let us examine the imperialism of the Hindu *sârva-bhaumas* (world-rulers) on the basis of their own charters, decrees and promulgations (*shâsanas*) that have been rendered accessible by the archeological and epigraphic investigations of recent years. The statesmen of the Chola Empire (900-1300) would appear to have been at their wits end in devising new forms of revenue. No complete list of all the heads of government income is available for this South Indian (Madras and Mysore) state, but several

² See the extent of the Vardhana Empire on the map facing p. 340 of Smith's *Early History of India* (Edition 1914).

⁶ Bana's *Harsha-charita* (Cowell's translation), p. 188.

⁷ Vide the author's article on "The Hindu Theory of International Relations" in the *American Political Science Review* for August, 1919.

⁸ Article on "Finance" in the *Encyclopaedia Britannica* (11th Edition).

² Schömann's *Antiquities of Greece*, p. 445.

³ Ramsay and Laucian's *Roman Antiquities*, (16th Edition), p. 282.

⁴ Beal's *Si Yu Ki*, Volume I, pp. 87-88.

Tamil inscriptions⁹ describe the immunities from dues to the state enjoyed by certain villages through the grant of royal charters. From the schedule of these "privileges" we can automatically see a great part of the other side of the shield; namely, the normal contributions to the imperial treasury for which each village was ordinarily liable.

The available list indicates only the revenue from villages or village unions; but it is questionable whether we are justified in treating it exclusively as that which should technically be a branch of "local finance." The village through its *panchayat* (council of five; that is, a body of competent men) was indeed responsible as a unit for the realization of all public income within its area¹⁰; but the heads of income do not seem to have been classified and specifically ear-marked as local and national. They can easily be brought down to the tripartite division into taxes, fees and prices.¹¹

In the first place, there was a "tax in money."¹² It may have been a direct tax per capita like the poll tax of 1377-1380 in England during the Hundred Years' War, or the *tributum* in Rome.

Something like a "general property tax" is to be understood in several imposts. Like the horses and cattle taxed by medieval German states¹³ "animals" were counted to contribute to the Chola exchequer. The furniture, clothing and ornaments are not enumerated in the schedule of taxes on "personalty," but "movable" prop-

erty, as contrasted with the real estate, was assessed in the form of "fixed capital" like looms and oil mills. Tanks, also, were included in the list of property dues.

A tax was realized on weights, whatever it might imply. Some light may be thrown on this item from the legislation of the Mauryas. In the *Artha shastra* of Kautilya (c 300 B. C.) we read that no trader was allowed to have his own weights and measures. Every day the business men had to have their scales and weights stamped afresh by the government.¹⁴ The authorities realized a revenue from the stamps. Now if this custom of the first Hindu empire were followed by the Tamil *sâra-bhaumas*, we may consider this business tax on weights to be another property tax.

It is doubtful if the business or license tax paid by the Tamil goldsmith should not be scheduled as a charge on property, but "unripe fruit" in the *Kartigai* month, though a levy in kind, must be regarded as such. Stocks, bonds and mortgages that are so prominent in modern economic life and necessarily occupy an important place in the taxation of property, are naturally not to be looked for in the Hindu finances of the tenth, eleventh, twelfth and thirteenth centuries. However, it is interesting to note that the "sonship" was assessed among certain social classes; for example, the "right hand" and "left hand" orders. The public income for the sonship dues was identical with that accruing from inheritance tax, or estate or "death duty"; that is, the charge made by modern governments on the transfer of property from the dead to the living.

None of these property dues were

¹⁴ Shamasastri's article on "Chanakya's Land and Revenue Policy" in the *Indian Antiquary* 1905, pp. 50-51.

⁹ *South Indian Inscriptions*, Volume II, Pt. i, No. 22.

¹⁰ Aiyangar's *Ancient India*, pp. 161, 163-164.

¹¹ Plehn's *Introduction to Public Finance*, pp. 76-79, 92-100; Seligman's *Essays in Taxation*, pp. 430-431.

¹² The list can be seen conveniently in Aiyangar, pp. 165-166, 180, 181-182.

¹³ Seligman's *Essays*, p. 39. cf. Aghnides' *Mohammedan Theories of Finance*, pp. 526, 527.

prices charged by the government for economic or other services rendered to the people. They were all deduced from the power of the state to obtain revenue by "compulsory dues and charges upon its subjects"; that is, taxes in the strictest sense of the term. None of them, moreover, can be regarded as income from "state property" and "state monopolies,"—the two sources that contribute about 25 per cent of French revenues.¹⁵

Taxes on consumption were not neglected by the Chola Empire. There was a tax on bazaars. The levy of tolls was common. The tax on trade or sales, like the Athenian and Roman excise of 1 per cent,¹⁶ was another regular feature of the financial system. As taxes on the necessities of life, these excise duties could not but touch the community at every grade. They served, therefore, economically speaking, as real poll taxes though of an "indirect" denomination. We do not know if salt was a state monopoly as under the Roman republic,¹⁷ or as in Maurya India, but the French *gabelle*¹⁸ was not to be forgotten by the Tamils who were too mindful of their revenues to overlook tapping this necessity of life that is bound to obey the law of "inelastic demand."

A rent or license tax was realized from the fishers. Taxes on the collection of rents also are mentioned. Tax-"farming" may thus have been a fact in certain directions. Furthermore, the "penal power" of the state was effectively made use of to coöperate with its finance department. It is known only that apothecaries were fined for "rotten drugs." An income of minor character is obvious in

Kulottunga's legislation (1070-1118) by which the state charged a seigniorage upon coining.¹⁹

Income from the services of the state is mentioned in three connections. First, the villagers had to contribute their mite to maintain the watchman who was placed over the *vetitis* (paths). This was for obvious reasons a regular rate or cess, though local, for one of the minimum functions of government. Secondly, the state seems to have supplied the *karman* to measure the paddy of the cultivators. He had to be paid for by the rural commune at a certain rate. Lastly, a water rate or "tax on water courses" for irrigation was an inevitable charge upon every peasant.

Mines, though they must certainly have been important sources of Chola revenues, are not mentioned in the inscriptions, nor is there any reference to the customs duties. Neither of these could form part of the regular dues of a village to the government.

We have now to add the revenue from property *par excellence*, the "real estate" as it is called. Not only in primitive communities, but in Rome also, even under the Empire, land revenue was the mainstay of the government. This land revenue was essentially a rent from "crownland," *ager publicus*; that is, public domain. It took the Romans a long time to get used to the idea of a non-land revenue. Taxes like the *tributum* were considered by the republic as "forced loans" to be repaid out of the loot of conquest, and these were resorted to only when the proceeds of the "domain" proved inadequate to meet the extraordinary expenses.²⁰

¹⁹ Aiyangar, pp. 149-150.

²⁰ Seligman's *Essays*, p. 35. The same Roman views are expressed in the sixteenth century by the French political philosopher, Jean Bodin, in his *Les six livres de la république* (Book VI, ch. ii, *Des Finances*).

¹⁵ Palgrave's *Dictionary*, Volume II, p. 69.

¹⁶ Schömann, p. 449.

¹⁷ Ramsay, p. 277.

¹⁸ Brissaud's *History of French Public Law*, p. 505.

Under the Tamils, South India's financial backbone must have been furnished by the realizations from land. The rate was not low. The early Roman Empire used to levy land revenue at the rate of one-tenth of the produce,²¹ but in Chola India the government demand was one-sixth. This high rate was the normal *bhāga* or share of the government in land produce according to the stereotyped "pious wish" of the *dharma-shastras* (law books) and *nīti-shastras* (political science).²² And yet in *Realpolitik* this conventional norm was but a fiscal camouflage that may deceive the academic student of financial history but did not fail to press the taxpayers themselves. For in Chola legislation the additional imposts on land, besides the tolls and *octrois*, were clearly defined as being one-tenth of the yield. The total revenue from land was thus four-fifteenths or more than 25 per cent of the gross outturn in Rajadhiraja's time (1035-1053).²³

An interesting theoretical study in connection with the Chola revenue from real property would be that bearing on its precise character as to whether it was rent or tax. Communism in land ownership is practically unknown in the Hindu law books.²⁴ The trend of ancient legal thought on the subject of land tenure is to regard it as an individual concern, but in Tamil inscriptions, while the individualistic tenure (the *ryotwari*, to use the British Indian term) is easily

to be inferred, communal property in certain lands is also assured to village *panchayats* by the legislation of Rajaraja the Great (985-1018).²⁵ We may take it that so far as the Chola Empire is concerned, land was owned both in severalty as well as in common.

This does not, however, settle the question as to how far the crown was the legal proprietor of land; that is, how far the "village community" or the individual cultivator were but "tenants" of the state landlord (paying economic "rents" for the usufruct of a property) and how far their dues were "direct taxes" paid on their own "immovable" possessions. It is the tendency of modern Indologists to postulate all lands as state property and therefore the income from land as crown rent. It is hardly possible to maintain this position on the basis of actual proprietary documents, *shāsanas* (laws or charters) and epigraphic records. For all practical purposes the presumption should be that ancient India did not know of state landlordism; that is, land nationalization,²⁶ except in very limited areas. The land revenue of the Hindu states was, therefore, generally speaking, a tax, but, as Sir Robert Giffen²⁷ explains away the distinction between rent and tax, the fact of a government levying so general a charge may be held *ipso facto* to convert the charge into a tax having much the same economic effects and consequences as a tax. In strict theory, "where the government makes a charge, it levies a tax." The features of monopoly and compulsion on the taxpayer associated with all forms of land revenue "make the charges difficult to

²¹ Ramsay, *p.* 276.

²² Vide the author's article on "Hindu Political Philosophy" in the *Political Science Quarterly* for December, 1918 and on the "Hindu Theory of the State" in the same journal for March, 1921.

²³ Aiyangar, *pp.* 181-182.

²⁴ Jolly's *Recht und Sitte*, *pp.* 93-96; Hopkins' *India Old and New* (Land Tenure), *pp.* 221, 225, 229; Macdonell and Keith's *Vedic Index*, Vol. I, *pp.* 245-246.

²⁵ Aiyangar, *pp.* 161, 163-164.

²⁶ Vide the discussion on public lands in Rau's *Finanzwissenschaft* (1864), *pp.* 127-133. Cf. Bodin, *pp.* 628-634 (Edition 1578).

²⁷ Article on "Taxation" in the *Encyclopedia Britannica*.

distinguish logically from other taxes."

On the whole, the Chola revenues were bulky in dimensions and the people of southern India heavily taxed. Only one ruler is spoken of as having slightly reduced the amount of the people's dues. Kulottunga's name became a household word in Madras of the eleventh and twelfth centuries, for in 1086, the year of the Domesday Book, he abolished the tolls²⁸ after the completion of the cadastral survey,—the second such survey of the Chola Empire, but the general story of *les nerfs de la république*, the "nerves of the state," as Bodin puts it, under the Chola Empire was uniform. Like the governments of Europe in the days of Adam Smith,²⁹ the south Indian monarchs knew how to exact as much as they could, "only desirous of finding the easiest means of doing so." The one redeeming feature seems to be that the empire was conscious of the high price at which *par sārva-bhaumica* was being enjoyed by the people. Raja-raja the Great accordingly instructed the finance officers to be elastic in the collection of revenues.³⁰

Taxation as such was unknown in France previous to 1300.³¹ As a function of the state and as an institution of "public law" it virtually ceased to exist with the destruction of the Roman Empire by the Teutons. In its place was substituted the "private claim" of customary dues, fines or tolls by landlords and barons.³² The transition from this "feudal" to "modern" finance was a lengthy process in England.³³ It was not before the rise of the nation-states in

the fifteenth and sixteenth centuries that the right of government to levy "taxes" on the people became established or rather reestablished in the western world. For purposes of comparative politics it is necessary to note that the Chola finances do not exhibit the features of the disintegrated feudal polity of medieval Europe. The revenues of the Chola Empire possessed the same variety in form as the Roman-Imperial and the modern French. They may be classified, if necessary, according to the Latin *patrimonia, tributa* and *rectigalia*, or the more popular *domaine, contributions directes*, and *contributions indirectes* of modern science. Of course the right of taxation was firmly planted in the political consciousness of Chola India.

THE CONSUMPTION-SCHEDULE OF HINDU STATES

It is not difficult to explain why the imperial structures of the Hindus should have been heavily assessed organizations. The reasons are to be sought in the great variety and quantity of the state's "consumption." They are essentially identical with what economists like Nitti and Leroy-Beaulieu³⁴ have traced in the growth of public expenditures in modern times. The functions of Hindu governments were manifold. Consciously or unconsciously, whether backed by a definite theory of *niti* (statecraft) like the late German Empire or not, every state in India was a "culture-state." The invariable end of every Hindu polity was the protection and development of *dharma*. Like *Kultur* and Arnoldian "culture," *dharma* is a very comprehensive category. Exceedingly elastic in its significance, like the English term "law," the concept is the basis of distinction, the *fundamentum divisionis*, between

²⁸ Aiyangar, 149-150.

²⁹ *Encyclopedia Britannica* (Taxation).

³⁰ Aiyangar, p. 182.

³¹ Brissaud, pp. 487-491; Leroy Beaulieu, Vol. II, pp. 6-7.

³² *Encyclopedia Britannica* (Finance).

³³ *Ibid.* (article on "English Finance").

³⁴ Leroy-Beaulieu, Vol. II, pp. 171-181.

man and the brute. *Dharmena hināh* (those who have not *dharma*) says the *Ġtā*, *pashubhih samānāh* (are like the beasts). In *dharma*, the analogue of the "virtue" of Plato's *Republic*, is to be found the *differentium* between the human world and that of *pashu* or "beasts and birds" as Hobbes would have it. An agency for the promotion of humanism, that is, for the advancement of all that lets "the ape and tiger die" and develops the people's material and moral interests,—of anything, in short, that is conducive to national well-being was necessarily a multi-functional corporate organism. The *dharma*-states of India had, therefore, before them an almost unlimited range of what in scientific parlance is known as "developmental" activity. Not of an Arcadian character could thus be the "appropriations" of the Hindu empires.

We need not enumerate the duties of government stated in the *nīti-shāstras*. Let us note only the functions of the historic state systems that may be gathered from the inscriptions and contemporary reports. The economic development of the country was undertaken by the Maurya, Gupta, Kashmirian, Tamil and Ceylonese governments. Their care for irrigation³⁵ in different parts of the empire is a solid testimony to their recognition of the secular interests of the state. The construction of magnificent roads was another function along the same line.³⁶

³⁵ *Epigraphia Indica* 1905-1906, pp. 46-49; *Gupta Inscriptions* (*Corpus Inscriptionum Indicarum*), pp. 56-65; Kalhana's *Raja-tarangīnī* (Stein's translation), Book V, verses 68-117; Venkayya's "Irrigation in Southern India in ancient times" in the *Archaeological Survey of India*, Annual Report, 1903-4; Deakin's *Irrigated India and Ceylon*, 239-242, 252; Aiyangar, 185-188.

³⁶ McCrindle's *Ancient India* (*Megasthenes*, XXXIV), p. 86; Arrian's *Indika* III; Aiyangar, 188-189; Law's *Hindu Polity*, Vol. I, pp. 68-75.

The beautifying of cities and measures for street-cleaning, sanitation, etc. were important items of state business in Chola territories.³⁷ The promotion of aesthetic as well as "productive" arts and crafts was a normal function of almost every Hindu state. The encouragement or "protection" of skilled workmen, the steady maintenance of shipbuilders and naval architects, and state employment of miners and other industrial artisans, were among the duties of the Maurya civil service. Shipbuilding³⁸ and manufacture of arms and ammunitions were in fact state monopolies. Wood cutting, carpentry and smithery works came, therefore, under the state control. All governments undertook to lay out parks and grounds for recreation and pastime. Pharmaceutical gardens were state necessities. Palaces and public halls were likewise some of the "useful magnificences" that no state could dispense with. The Pandya rulers (c 100-300 A.D.) were patrons of *parishads* or academies of literature.³⁹ The Guptas⁴⁰ (330-600) and the Palas⁴¹ (c 750-1150) considered universities among important charges on the imperial exchequer. Temples and *vi-hāras* or monasteries were built at state expense both by the Vardhana and Chalukya emperors of the seventh century.⁴² Not the conventional religion and morality of the time alone found an asylum in these institutions. The financial authorities must have regarded them as schools of higher learn-

³⁷ Venkatarama Ayyar's *Town Planning in Ancient Deccan*, pp. 42, 44, 51.

³⁸ McCrindle's *Ancient India*, p. 86; Strabo, XV, 46; Mookerji's *Indian Shipping*, p. 102.

³⁹ Aiyangar, pp. 70, 337, 359, 360, 379-82.

⁴⁰ Takakusu's *Hsing: Record of the Buddhist Religion*, pp. 65, 154, 177.

⁴¹ *Indian Antiquary*, 1888, pp. 308-311.

⁴² Beal's *Si Yu-ki*, Vols. I and II (see Hiuen Tshang's account of any of the states visited by him).

ing as well. From the cultural standpoint these were at once the art galleries and museums of the people. As resorts for the relief of the sick, the distressed and the poor the ostensibly religious buildings discharged an important economic function like the Catholic institutions of medieval Europe. Add to all this the minimum functions of every state as state, namely, the protection of person and property, or national defense by army and navy, as well as internal policing by adequate executive and judicial staff. The extent of these minimum functions can be realized from the fact that in the Maurya Empire the appropriations on this head absorbed 25 per cent of the total revenues.⁴³

PRIVATE ENTERPRISE IN PUBLIC WORKS

It is not necessary to compare the functions of Hindu states item by item as regards quantity and variety with the long list of modern state activities that have been daily expanding under the impact of socialism. The socialistic trend of India's *dharma*-states is apparent enough. It must not be surmised, however, that every public work among Hindus was the undertaking of the state, for the patriotism of citizens was responsible in every age for the founding and maintenance of useful institutions. In Gupta India hospitals⁴⁴ were built and endowed by the public spirited townsfolk of Pataliputra (near modern Bankipore in Bihar Province), the Rome of the Hindus. Rudra-damana (c.A.D. 150), a satrap of Gujarat, repaired the Sudarshana reservoir at his own expense, the ministers having refused to supply funds from the government treasury.⁴⁵ Ushavadata's (c 100 A.D.)

endowments in the Andhra Deccan may serve as a standing example of the manner in which the people coöperated with the state and supplemented its activity along developmental or cultural lines.

One of the hill caves in Govardhana (Nasik District in the Bombay Presidency) was excavated at Ushavadata's expense.⁴⁶ Among his numerous benefactions we read of the gift of 300,000 cows, the construction of flights of steps on a river and the giving away of sixteen villages for religious purposes. This philanthropist used to maintain 100,000 priests and scholars with board. He bore the marriage expenses of eight Brahmanas at Somnath. His quadrangles, public halls and halting places, as well as gardens, tanks and wells were spread over the country from Broach and Bassein, the ports on the Arabian Sea coast, to Dashapura in Malwa, far inland in Upper India. Ferry boats were placed by him over six rivers in northern Bombay. Both sides of these rivers were also furnished with rest houses and equipped with arrangements for the distribution of water to travelers. Moreover, he founded certain benefactions for the support of several academies of Vedic learning in various parts of the Maratha country.

Such private endowments for public purposes were undoubtedly numerous in every epoch of Hindu polity. But none the less the financial burden of public administration weighed heavy upon the "pillars of the state." The government could not afford to depend solely upon "local patriotism" and voluntary contributions. The expenses of national housekeeping had to be met regularly from the resources of the empire. The financiers, therefore, had to raise the necessary revenue by hook or by crook.

⁴³ *Indian Antiquary*, 1909, p. 263.

⁴⁴ Beal's *Travels of Fa Hien*, p. 107.

⁴⁵ *Epigraphia Indica*, 1905-1906, *loc. cit.*

⁴⁶ *Nasik Inscriptions*, No. 17; R. G. Bhandarkar's *Early History of the Deccan*, Sec. IV.

VITAL STATISTICS

Census⁴⁷ was an important institution of the Mauryas. It was used by the municipal corporation of Patali-putra as well as by the imperial civil service. The *gopa* or village magistrate, the *sthānika* or district magistrate, as well as the *nāgaraka* or mayor of the city were alive to the importance of vital statistics. The numbering of persons, houses, and cattle as well as the measurement of lands, pastures and gardens furnished the *samāhartā* or collector-general with definite data for the valuation and assessment of the people's wealth.⁴⁸ The cadastral surveys organized by the Cholas⁴⁹ in 986 and 1086 were also calculated to ensure the same end. Both these instruments tended to bring about centralization and consolidation of the public revenues and were indeed, together with the war office, the judiciary and the executive service, the most effective means of establishing *pax sārva-bhau-mica*. The financial organization aimed at by the Hindu empires was thus akin to the "integration" of national outlays and revenues that have been the steady achievement of modern Europe since the fifteenth and sixteenth centuries. It is the system of the Roman Empire in classical times with its official tax collectors who replaced the *publicani* or revenue-"farmers" of the republic that should be kept before the mind's eye while appraising the public expenditure, national resources or heads of income, and financial administration of Hindu India from *B. C.* 332 to 1300.

KAUTILYAN FINANCES (c 300 *B. C.*)

We shall now proceed to analyze the revenues of the Maurya Empire

(*B. C.* 322–*B. C.* 185). One of the functions of the *gopa*, the officer at the lowest rung of the executive hierarchy, was to register the probable dues of the villagers in "working men"⁵⁰ along with taxes, tolls and fines. It is not clear whether we are to understand that the empire used to receive contributions in "services" like the Roman republic in its earlier stages,—for instance, such as is recommended by Vishnu,⁵¹ Manu,⁵² and Śaṅkara.⁵³ In Megasthenes' account of India, we again read that one of the objects of the vital statistics kept by the census officials of the municipal corporation of Patali-putra was the levy of a tax.⁵⁴ If some particular tax is to be singled out because of this statement it was evidently a poll tax on the citizens per head.

The financial authorities themselves classified the revenues into seven principal groups according to the kind of resource tapped by them. "Fortified cities" constituted the first revenue jurisdiction. The *rashtra* or "country" districts constituted the second. Mines were treated as a distinct source of public income. Gardens and forests also formed two independent groups. Quadrupeds like cows, buffaloes, sheep, goats, asses, camels, horses and mules likewise contributed their quota. The seventh head was traffic both by land and water.

Each of these sources is described in detail in the *Artha-shastra*.⁵⁵ The several items of income from the "country," for instance, the second in the above grouping, comprised six

⁴⁷ *Indian Antiquary*, 1905, p. 5.

⁵¹ Chapter III, 32 (The Sacred Books of the East Series).

⁵² VII, 138.

⁵³ Chapter IV, Sec. ii, line 241 (Sarkar's translation in the Panini Office Series, Allahabad).

⁵⁴ McCrindle's *Ancient India*, pp. 87–88.

⁵⁵ *Indian Antiquary*, 1905, p. 47.

⁴⁷ Law, Vol. I, pp. 106–114.

⁴⁸ *Indian Antiquary*, 1905, p. 5.

⁴⁹ Aiyangar, 144, 149–150, 175–177.

heads. Crown lands yielded the first revenue, known as *sîtâ*. The second head was *bhâga* (share) or revenue in kind realized from private landlords. A special tax, *bali*, corresponding to the dues realized by Athens for the festivities was demanded for religious purposes. Sundry collections known as *kara* were made in money. *Târa* was the toll realized on boats, ferries and ships. The sixth item consisted of various dues, *rantanî* (road-cess), *shulka* (toll), etc. and was levied as a rate on all traffic.

The fortified cities contributed to the imperial exchequer under twenty different heads. These were toll, fines, weights and measures, jails, currency, passports, excise, slaughter houses, oils, *ghee* (clarified butter), salt, goldsmiths, commerce, courtesans, gambling, housebuilding, artisans, gate dues and religious institutions. There were special taxes on a people called Baharikas. They appear to have been mercenary soldiers or some wealthy community living at Nalanda, the famous university town of later ages. Like Jews in Europe, this race was considered by the Hindu empire to be a good victim for fleecing.

Altogether, there were at least fifty different names under which revenues flowed into the treasury. For our present purpose we shall classify them into eight modern categories: (1) land revenue, including the income from forests and gardens, (2) customs duties, (3) excise on sales, (4) "direct" property taxes of various denominations, (5) fines as penalties for all sorts of offense, (6) economic "earnings" or profits from the commercial undertakings of the naval department, (7) income from the state monopolies in extractive (mine, salt, etc.) and other industries, (8) miscellaneous collections like port dues, etc.

As with the Roman Empire,⁵⁶ the chief source of Maurya income was the receipt from land. In the west the process of fiscal reorganization from Hadrian to Diocletian led up to the system of assessment for fifteen years, but in regard to the Mauryas no information is available as to the period for which the valuations were made.

In Athens land belonged to the state. In Maurya India certain passages of the *Artha-shastra* may lend color to the hypothesis as to the "public ownership" of the chief "agent of production." If Kautilya's statements may be taken as "positive law" on the subject, both land and water belonged to the government. The people could exercise their proprietary right in regard to all other species of property excepting these two.⁵⁷ On the other hand, this position would appear to be inconsistent with the fact noted above that two distinct items were enumerated as land revenue from the *rashtra* or country districts of the empire. The *sîtâ* was the income from the state lands. It was thus crown rent. The other realization was specifically known as *bhâga*, the "share" of the state in the "produce" of the people's lands. The private proprietors were known as *sva-viryopajîvinah*. Besides, the right of private property in real estate was clearly recognized in the law of sales. According to the legislation in the *Artha-shastra*,⁵⁸ village lands were to be sold in the presence of forty neighbors who owned lands in the vicinity. The state could demand only the legitimate excise on the sale. The same proprietary right is to be inferred from, though also limited by,

⁵⁶ Arnold's *Roman System of Provincial Administration*, pp. 203-204; Ramsay, pp. 275-281; *Encyclopedia Britannica* ("Finance").

⁵⁷ *Artha-shastra*, II, xxiv, cf. the Mohammedan theory of public domain, Aghnides, pp. 500-521.

⁵⁸ *Indian Antiquary* 1905, p. 10; Law, 161-162.

the ruling that lands could be sold by cultivators only to cultivators, and that persons enjoying revenue-free lands could sell them only to persons who already had such lands. The distinction between crown lands and private lands is also to be noted in the law of escheat. By the general law on the subject the rights of ownership over houses, fields, gardens, tanks and temples were forfeited if proprietors took no cognizance for a continuous period of five years.⁵⁹

In the budget of the Maurya Empire as in that of the Roman we have therefore to look for two entries, theoretically considered, under land revenue. The first was rent paid by the *ryot* or tenant to the state-landlord, the second was a "direct tax" paid by the citizen to the government. The imperial demand from land was very high, higher even than what we have seen under the Cholas. For the land alone,⁶⁰ where irrigation was carried on by hand, the due was one-fifth of the yield. Where irrigation was carried on by conveying water on shoulders or through water raised from tanks, lakes and streams the due was one-fourth, and where irrigation was carried on by "pumping" water from rivers (*sroto-yantra*) the due was one-third. An additional *udaka-bhâga* or water rate was charged by the government at one-fourth or one-fifth of the produce. The total rates ranged, therefore, from two-fifths or 40 per cent to seven-twelfths or about 57 per cent of the gross outturn. Provisions for the remission of taxes are recorded, but it was not done on any *doctrinaire* principle. Abatements were graduated according to the difficulties and cost of improvement effected by cultivators.⁶¹

Gardens were assessed at the same rates as cultivated lands. An additional one-sixth or $16\frac{2}{3}$ per cent had to be paid as excise on sales.⁶²

Important taxes of the Mauryas were twofold: customs and excise. Along with land revenue these must have constituted the mainstay of their finance. In Athens⁶³ under Pericles the policy of free trade appears to have been adopted, as the city depended for its food supply on external sources. Its normal customs duty was, therefore, as low as 2 per cent. The Roman *portoria*⁶⁴ (customs dues) were higher, the earliest maximum being 5 per cent. The extreme maximum under Constantine was $12\frac{1}{2}$ per cent. But the Maurya tariff was high enough to verge on, nay, actually establish, an economic "protection." Thus, in regard to imported salt the empire demanded, in the first place, one-sixth or $16\frac{2}{3}$ per cent of the entire commodity, and in the second place, a 5 per cent as trade or sales tax on the remaining five-sixths.⁶⁵ Similarly foreign liquors, wines and intoxicants had to bear heavy import duties which varied from one-fiftieth or $6\frac{2}{3}$ per cent to one-tenth or 10 per cent of their value.⁶⁶ In both cases, in addition to the tariff the government charged an extra duty in order to compensate the loss in the sale of local produce. Probably the total maximum may have approached the British customs rate which though down to 1700, not generally higher than 5 per cent, rose to 25 per cent by 1759.⁶⁷

The normal Maurya duty on foreign

⁵⁹ *Ibid.*, p. 114.

⁶⁰, ⁶⁴ *Encyclopedia Britannica* ("Finance"). For a detailed account of Athenian finances see Schömann, pp. 432-464.

⁶⁵ *Indian Antiquary*, 1905, p. 53.

⁶⁶ See details, *Ibid.*, pp. 50, 55.

⁶⁷ Dowell's *History of Taxation and Taxes in England*, Vol. I, pp. 82-88, 145-146, 163-167, 211-223; Vol. II, p. 37.

⁵⁹ *Indian Antiquary*, 1905, pp. 9, 105, 113.

⁶⁰ *Ibid.*, p. 110. Note the 50 per cent in Moslem theory, Aghnides, 529.

⁶¹ See details, *Ibid.*, p. 9.

goods was one-fifth of their value; that is, 20 per cent. One-sixth; that is, 16 $\frac{2}{3}$ per cent was realized from fresh fruits, vegetables, pepper, dried fish, flesh and other perishable goods. The rates on conches, diamonds, pearls, etc. were to be fixed at the custom house by experts. Silk garments, arsenic oxide, skins, carpets, etc. were charged *ad valorem* from 6 per cent to 10 per cent. The minimum rates on the tariff schedule were 4 per cent to 5 per cent. In order to be consistent, the empire dealt severely with all cases of smuggling. The highest fine of 3,000 *panas* or \$750 was the punishment prescribed for this offense by the penal code.⁶⁸ No figures are available as to the gross customs receipts, but it may be surmised that the 27 per cent of the total German imperial revenues as accruing from customs duties alone would not have been envied by the Maurya finance minister.⁶⁹

It might seem as if the empire intended almost to place an embargo on foreign import, but there were certain tendencies in the fiscal policy of the Mauryas in regard to international trade that indicate a different character of the tariff. The protective duties were high, but they were not meant to be "prohibitive." On the other hand, there was a deliberate attempt on the part of the authorities to encourage foreign imports. They regulated the prices⁷⁰ in such a way that a reasonable

⁶⁸ *Indian Antiquary*, 1905, pp. 49-50. The fine for smuggling according to United States law is as high as \$5,000 or imprisonment for two years, or both; cf. Higginson's *Tariffs at Work*, p. 112.

⁶⁹ Plehn, 184.

⁷⁰ *Indian Antiquary*, 1905, p. 57. Note the seven distinct expenses of marketing: *shulka* (toll), *varṭani* (road cess), *atirāhika* (conveyance cess), *gulma-deya* (duty payable at military stations), *tāra-deya* (ferry charge), *bhaktā* (porter's wage), and *bhāga* (share of the state) that were calculated by the customs officials in fixing the price of the imported commodities.

profit was assured to the dealer in imported goods. If necessary, special instructions were issued to the proper officials to accord concessions in certain particulars to foreign merchants. Under these conditions it is doubtful if the Maurya tariff should be considered as "protective" in any significant sense. In any case its character as a measure for revenue purposes is unquestionable.

The duty of one per cent on all sales was a regular tax of the Roman Empire. Such an impost, call it market due, toll or octroi, was, as we have noted, prevalent in Athens also. The rates in Maurya India were much higher. Commodities sold by cubical measure were charged six and one-fourth per cent, those by weighing five per cent and those by computation nine and one-eleventh per cent *ad valorem*.⁷¹ This tax, known by the generic name of excise or inland trade revenue, was assessed by the Mauryas in two ways. In certain lines, as with salt and precious metals, they retained the monopoly of manufacture and sale for the government, but the general method of assessment was the grant of a license to the vendor or manufacturer.

The excise branch of the revenues was thoroughly centralized. The licensing procedure was most efficiently observed. Nobody was permitted to sell the goods at the places of growth or manufacture; for example, fields, gardens, forests and mines.⁷² All commodities had to be brought to the customs house or toll office near the city gate. These were then marked with the state stamp called *abhijnāna-mudrā* (mark of identification) in *sindura* (vermillion or red lead). The tax was levied, however, only after sale. The law was very strict, as evasion of the tax was a

⁷¹ *Ibid.*, loco citato.

⁷² See details, *Ibid.*, pp. 50, 114.

capital offense. False statements to the officials made by merchants in regard to amount or price were, besides, punished as cases of theft; that is, by fine, mutilation or even death.⁷³

It is evident that customs and excise receipts of the Maurya Empire were much more voluminous than those of the Roman Empire. Analogues for this aspect of Hindu finance have to be sought in the modern states, like England, Russia and France, where half of the national revenues is made up of the returns of customs duties and excises, or in the United States where virtually the whole of "federal" revenues is derived from these two elements.⁷⁴

Recent authorities on the shifting of taxation are, for practical considerations, inclined to do away with the formal or verbal distinction that economists have long recognized between the taxes on consumption (like customs and excise) and the taxes on property or income.⁷⁵ Using the conventional nomenclature, we have to mention that in addition to customs and excise, the so-called "indirect" taxes, the Maurya Empire levied "direct" taxes also. It has already been pointed out that a great part of the land revenue was a direct tax on real estate insofar as land was the private property of citizens. The taxes on personality or movable property have now to be enumerated.

In Kautilya's list we do not have the taxes on looms, oil mills, etc. that are mentioned in the Chola inscriptions; nor do the Tamil taxes on "sonship" or inheritance and succession appear in the Maurya statements, but, as we

have seen, weights and measures were taxed.⁷⁶ Gamblers had to pay a license.⁷⁷ Dramatists, players, singers and musicians were charged five *panas* (\$1.25).⁷⁸ A tax was levied from prostitutes as in Athens⁷⁹ and in Rome under Caligula.⁸⁰ As a rule, cattle were not taxed per capita. They figured in the *samāhartā's* (collector-general's) books only in connection with excise on sale. Under abnormal conditions, when an emergency finance was the problem, a special due was charged on domestic quadrupeds.⁸¹ The same circumstances brought painters, sculptors and artists generally within the tax collector's grip.⁸²

It seems, on the whole, however, that the Mauryas considered the taxes on property rather as a safety valve to fall back on in dire necessity than as a normal source of regular imperial revenues. When the necessity arose (through war conditions) the empire did not hesitate to levy what were virtually "super-taxes" on both immovable and movable properties of the wealthier classes. In the first place, the rates of land tax were enhanced,⁸³ but regions barren or difficult to cultivate were exempted from emergency taxation. Persons engaged in "essential industries," for example, in agriculture, forestry or elephant training were likewise granted a privilege. In the second place, contributions in "services" were levied from "lacklanders," especially from culprits and bad characters.⁸⁴

In the third place, persons rearing

⁷⁶ See details, *Indian Antiquary*, 1905, pp. 50-51.

⁷⁷, ⁷⁸ *Ibid.*, 58.

⁷⁹ Schömann, p. 449.

⁸⁰ Seligman's *Essays*, pp. 36, 37.

⁸¹ *Indian Antiquary*, 1905, p. 114.

⁸² *Ibid.*, p. 59.

⁸³, ⁸⁴ See details, *Ibid.*, p. 115; also *Indian Antiquary*, 1909, pp. 260-261; *Arthashastra*, V, ii.

⁷³ See details, *Ibid.*, pp. 48-49; *Artha-shastra*, II, xxxv, xxxvi.

⁷⁴ *The Statesman's Year Book*.

⁷⁵ Giffen's article on "Taxation" in the *Encyclopedia Britannica* (*The Different Kinds of Taxes*); Seligman's *Shifting and Incidence of Taxation* (1902), pp. 310-311.

pigs and cocks had to contribute 50 per cent of their stock. Those who had sheep and goat farms were taxed $16\frac{2}{3}$ per cent, and herdsmen who reared cows and buffaloes ten per cent.⁸⁵ In the fourth place, a special levy of 500 *panas* (\$125) was raised from merchants in diamonds, horses and elephants. Dealers in cotton goods had to pay 400 *panas*, dealers in grains and liquids 300, traders in glass and glassware 200, artisans and carpenters 100, and dealers in mudpots, inn-keepers and small retailers 50.⁸⁶ In the fifth place, dramatists (and theater managers) as well as prostitutes had to surrender half their annual earnings.⁸⁷ And lastly, as in Athens,⁸⁸ the government exacted extraordinary donations and gifts from temples and religious establishments.⁸⁹ The process might almost be described as a legalized looting of ecclesiastical property by the secular authorities.

Some of the war taxes were described by Kautilya euphemistically as *pranaya* or "love" gifts.⁹⁰ The empire used to pose as "beggar" and appeal to the "patriotism" of the citizens for "voluntary" subscriptions. In order that the "modernism" of Maurya finance may be appreciated still further it has to be pointed out that titles of honor were conferred by the government on the patriotic contributors. Subscribers to the "liberty fund" were honored, for instance, "with a rank in the court, an umbrella, or a turban or some ornaments in return for their gold."⁹¹ Furthermore,

the government took special steps to advertise and give publicity to the donations of the patriots in order to create a spirit of rivalry among the rich in the acts of self-sacrifice.

It was not with an alleged Machiavellian wickedness, but in quite the scientific way of "high finance," that Kautilya approached the problem of financing a war. The financial heads of the Maurya Empire knew how to cause the rich to "vomit" (*ramana*) their accumulated wealth or otherwise deplete and drain (*karshana*) them of their property.⁹² Exploitation of the "gold lords" by the state was a process of expropriation that the *Arthashastra* does not hesitate to pronounce as the objective of the "Ways and Means" Committee. Like the "liturgies" and *eisphora* of the Athenian city state⁹³ high imposts of various denominations were, therefore, borne by people of large incomes in Maurya India. The impact of war finance must have tended to make the demands of the state even in normal times "progressive" in spirit, if not mathematically so.

We shall now consider the "non-tax" revenues of the Maurya Empire. These were principally of two classes: one derived from the penal power of the state and the other from the economic activities of the government. The empire as a *danda*-wielding or "sanction"-exercising organization must have realized an enormous amount from fines, as these were the usual penalties inflicted by the courts of justice. The list of "crimes" was lengthy. The arms of law could reach almost any individual. Dealers in foreign goods had as many chances of transgressing the laws as the butchers in municipal areas. The number of

⁸⁵, ⁸⁶, ⁸⁷ See details *Ibid.*, p. 116. See Gupta's "Courtesanship in Buddhist India" in the *Hindustan Review*, Allahabad, August, 1919.

⁸⁸ Schömann, p. 454.

⁸⁹ *Indian Antiquary*, 1905, p. 117.

⁹⁰ *Ibid.*, pp. 115, 117; cf. "benevolences" in British fiscal history, Dowell, Vol. I, pp. 155-157, 202-203, 243.

⁹¹ *Ibid.*, 1909, p. 261; *Arthashastra*, V, ii.

⁹² *Arthashastra*, IV, iii.

⁹³ *Encyclopedia Britannica* (Finance).

offenses against sanitary laws⁹⁴ was as large as that against the prescribed hours and places of fording rivers.⁹⁵ Persons committing nuisance on roads and other specified spots were fined one *pana* (twenty-five cents). Travelers without passports (bearing government stamps) had to pay a fine of 12 *panas*.⁹⁶ Bearers of false or forged passes were fined 1,000 *panas*. No foreigners were admitted into the country without permit. Delinquents had to pay a fine of 3,000 *panas*, the highest fine⁹⁷ sanctioned in Maurya legislation. This was the fine also meted out to those who tried to smuggle foreign goods in evasion of customs duties.⁹⁸ Negligence in having the day's government stamp fixed on weights and measures was fined 27 $\frac{1}{4}$ *panas*.⁹⁹ A fine of 600 *panas* was inflicted on the merchant who having imported foreign salt failed to compensate the government for the loss it might incur in not finding customers for its own salt.¹⁰⁰

The second head of non-tax revenue comprises the items of income that the empire derived from its economic enterprises. Shipping lines¹⁰¹ with fleets of boats for passengers and goods were maintained by the state. The traffic by sea was large enough to render the undertaking a lucrative proposition. The empire carried on another business

under the supervision of the naval department. State boats were let out on hire by the *nāradhyaksha* or port commissioner for purposes of pearl fishery and the fishing of conch shells.¹⁰² The ferry charges on rivers must also be considered in connection with the government's commercial ventures. These were regulated according to the size of rivers and the amount of freight carried.¹⁰³ Any load of commodities whether for sale or not was charged four *māshās* (about six cents). One *māshā* was paid by a traveler with a minor quadruped carrying some load. Two *nāshās* were demanded for a load carried on the head or on the shoulders, a cow or a horse. The rate was double for transporting a camel or a buffalo. The ferry charge for a small cart was five *māshās*, for one of medium size drawn by bulls six *māshās*, and for a big cart seven *māshās*. The ferry dues for large rivers were twice the respective rates.

By far more important than these quasi-political commercial undertakings as sources of "sinews of war" were the industries owned and run or controlled by the government. Altogether three state monopolies are mentioned in the Kautilyan schedule. The first monopoly was oil. The oil seeds were all brought to the government granary and pressed and made into oil by the state mills.¹⁰⁴ The administration of tobacco monopoly in France since the time of Colbert (1674) furnishes a modern analogue. The next monopoly was salt as we have mentioned above. In order to "protect" this government industry the empire legislated that purchasers of foreign salts must pay compensation to

⁹⁴ See the list of fines in municipal areas in the *Indian Antiquary*, 1905, pp. 51-52; also in regard to the construction of buildings, pp. 58-59. *Vide* the fines realized from slaughter houses, p. 55.

⁹⁵ See the ferry regulations, *Ibid.*, p. 111.

⁹⁶ *Vide* the passport regulations in regard to travelers, *Ibid.*, p. 54, and in regard to traffic in goods, pp. 47-48.

⁹⁷ *Ibid.*, pp. 51, 52.

⁹⁸ *Ibid.*, pp. 48-50.

⁹⁹ *Ibid.*, p. 51.

¹⁰⁰ *Ibid.*, p. 54.

¹⁰¹, ¹⁰² Mookerji, pp. 103, 106. Note *en passant* the regulations to protect passengers on ships run by private companies, *Indian Antiquary*, 1905, p. 113.

¹⁰³ *Ibid.*, p. 107; *Indian Antiquary*, 1905, pp. 53, 111-112; 16 *māshās* = 1 *pana*.

¹⁰⁴ *Indian Antiquary*, 1905, p. 55.

cover the loss sustained by the state.¹⁰⁵ Evidently foreign salt was not excluded altogether from the territory. There was, besides, the system of granting licenses by which private capitalists could manufacture and sell the commodity. In addition to the economic "profits" from the salt industry the government thus came to realize a large revenue from the customs, excise, and licenses. The realization of salt *gabelle* was threefold. First, the importing merchant had to pay the regular $16\frac{2}{3}\%$ in kind as customs *plus* the 5% on the remainder as excise. Secondly, the indigenous manufacturer purchased license from the government on the same terms. There was thus no economic discrimination against foreign salt. The effects of a countervailing excise duty were brought in operation indicating the "fiscal" character of the tariff. And thirdly, it appears that the government charged $13\frac{1}{8}\%$ as premium on the money that it received as price for the salt collected from the importer and the home manufacturer.¹⁰⁶

The most important monopoly of the Maurya Empire was the mines and minerals. Indeed the manufacture of salt was scheduled in the *Arthashastra* under the category of mining. As defined by Kautilya, mining was a comprehensive term including, as in medieval British law, "wreck of the sea and royal fish."¹⁰⁷ There were, therefore, two branches of mining under the Mauryas: (1) ocean mining, that is, pearl fishery, the fishing of conches, shells, and corals, and manufacture of salt, and (2) land mining.¹⁰⁸ The revenues from land mining were described as those accruing from gold mines, silver mines, mines of rubies

and metals such as iron, copper, etc.¹⁰⁹

In ancient and medieval legislation or custom mines were "public" everywhere.¹¹⁰ The silver mines at Laurium were owned by Athens. Mines were state property under the Roman Empire. Down to 1688 all English mines belonged to the crown. In 1568 the Exchequer Chamber stated the theory that the "King shall have the whole of the base metal."¹¹¹ Under the Mauryas also both land and ocean mines as well as the assaying of ores, coining, and commerce in minerals were *jura regalia* or crown rights *sui generis*; but they were not worked by the government except when the operations needed small outlay. Modern advocates of modified *laissez faire* may quote the Maurya precedent as an instance of the "individualistic minimum" of state intervention in industry. As a rule, the empire let out the mines on royalty basis to private enterprise. The royalty included nine distinct items.¹¹² As usual, the rates were high. The rental for the Laurium mines was only $4\frac{1}{6}\%$ per cent.¹¹³ The French mines yielded 10 per cent.¹¹⁴ The English rate on copper was $12\frac{1}{2}\%$ per cent to the state *plus* $11\frac{1}{2}\%$ per cent to the landlord,¹¹⁵ but the Mauryas demanded $16\frac{2}{3}\%$ to 20 per cent as *vibhāga*; that is, the government's "share" in the yield. In addition the capitalists had to pay $13\frac{1}{8}\%$ per cent *plus* 5 per cent as sundry charges.¹¹⁶

There may have been some other industries similarly undertaken or let out on license with a view to augment-

¹⁰⁹ *Indian Antiquary*, 1905, p. 47.

¹¹⁰ For "state mines" *vide* Bastable's *Public Finance*, pp. 174-176.

¹¹¹ Palgrave, *loc. citato*.

¹¹² *Indian Antiquary*, 1905, p. 113.

¹¹³ Schömann, p. 448.

¹¹⁴ Brissaud, p. 487.

¹¹⁵ Palgrave, *loc. citato*.

¹¹⁶ *Indian Antiquary*, 1905, p. 113. (Islamic law has 20 per cent, cf. Aghnides, p. 528.)

¹⁰⁵ *Indian Antiquary*, 1905, p. 54.

¹⁰⁶ *Ibid.*, p. 53.

¹⁰⁷ Palgrave's *Dictionary*, Vol. II, p. 765.

¹⁰⁸ Law, pp. 5-10.

ing the public income. The ship-building and munition industries were, of course, state monopolies, as has been mentioned above. Obviously they are to be regarded not so much from the standpoint of finance as of national defense.

Several miscellaneous taxes remain to be discussed as minor sources of revenue. The port duties¹¹⁷ realized by the *nāvadyaksha* were distinct from both customs and excise. Villages on sea shores and on the banks of rivers and lakes were assessed at certain rates. The fishing license demanded by the state was one-sixth or $16\frac{2}{3}$ per cent of the actual haul. Merchants had to pay the customary tax of port towns. Another group of minor collections came from currency. A premium of $13\frac{1}{2}$ per cent was regularly charged on coins of private or foreign mintage.¹¹⁸ The same amount was also realized by the government on every occasion that anybody had to pay a fine in cash.¹¹⁹ Lastly, we have to mention the escheats. Houses, fields, gardens, tanks and temples lapsed to the state, as we have seen, if the proprietors neglected to exercise their rights of ownership for five years.¹²⁰ Similarly the government was the heir of the property of prostitutes in the absence of daughters.¹²¹

No conceivable resource of the people appears to have been left untapped by the Maurya Empire. The all-reaching tentacles of Hindu finance lie on the surface. If, as Adam Smith remarks, there be nothing in which governments are so prone to learn of one another as in the matter of new taxes, the first and the last empires of pre-Moslem India can still give points

to the latest specialists in public finance, for the methods and principles of statesmen from Kautilya to Kulottunga were eminently realistic. With the exception of stamp duties, national debt, postal receipts and a few other characteristically modern duties, the assets schedule of the first class powers of today can hardly exhibit any taxes and non-tax revenues in addition to what the Hindu *sumantra* (finance minister) and his board of experts hit upon pragmatically in the third and fourth centuries B. C. in order to "cover" the appropriations on the governmental machinery of the largest and most extensive of all empires in the world's history.¹²²

THE ABILITY TO PAY

A study of the finances provokes naturally the correlated investigation into the general economic condition of the empire. But as yet it is hardly allowable to attempt a wide solution as to the "ability" of the people to meet the diverse demands of the government. In the first place, an enormous rise in prices may be postulated because of the high rates of customs and excise. This was sure to be felt by the entire community as consumers. In the second place, the normal land tax of 40 per cent to 57 per cent, though it may not have shorn the land-owning or agricultural classes to the skin, was certainly not a moderate

¹²² See the map of the Maurya Empire in the third century B. C. facing p. 162 of Smith's *Early History*. Compare the area with that of any of the European empires in Freeman's *Historical Geography of Europe* (with Atlas) or specifically with that of the Roman Empire at its greatest extent (third century A. D.) in the *Atlas of Ancient and Classical Geography* (Everyman's Library Series). Note, in comparison, that India is all Europe minus the Russia of the Czars, and that Maurya India, though it excluded the southern fringe of the peninsula, included the whole of Afghanistan and Baluchistan.

¹¹⁷ Mookerji, p. 106.

¹¹⁸ *Indian Antiquary*, 1905, p. 53.

¹¹⁹ *Ibid.*, p. 54.

¹²⁰ *Ibid.*, p. 9; cf. Manu, VIII, 30.

¹²¹ *Ibid.*, p. 57.

levy. In the third place, the traders and the intellectual middle classes could not get scot free from the imperial demand, as the property tax was mercilessly applied to them especially in emergencies. And in the fourth place, the moneyed aristocracy, bankers, gilds and other wealthy groups had to "vomit" out their gold at the call of the empire.

Economically speaking, there was no class discrimination. The empire maintained no privileged class on anything like an appreciable scale; nor would the government demands, though heavy, appear to have been oppressive or likely to sap the economic foundations of the society. On the contrary, there were certain distinct services by which the state sought to develop the "staying power" and taxable capacity of the people. We have spoken above of the socialistic trend of Hindu states as *dharma*-states, insofar as the sphere of their activity was co-extensive with the range of human interests. It is necessary now to note that the same tendency is noticeable in two other directions.

In the first place, the Maurya Empire owned several industries and controlled the production of wealth in certain lines. Government supervision of some sort or other brought the economic activities of the people within the compass of partial "public ownership." The consequent abolition of *entrepreneurs* or middlemen in a few channels of business was a positive advantage to the community. In the second place, the empire sought to regulate by legislation the more important branch of a nation's economic life; namely, distribution and exchange or value. The maximum rate of interest was determined by the government.¹²³ The market was pro-

TECTED FROM THE ravages of "profiteers." Reasonable prices and fair profits were fixed by official experts after calculating the legitimate expenses of production (including the cost of marketing).¹²⁴ The government scheduled also the rates of wages and fees for laundry men, painters, dramatists, singers and artists.¹²⁵

Such an imperial intervention in economic life, or what is the same thing, such "state socialism" under "enlightened despots," must have been appreciated at least by the common laborer. The rate of wages in Maurya India was 5 *panas* a month or 15 dollars a year.¹²⁶ It is interesting to observe that in Chola India in the eleventh and twelfth centuries a temple janitor earned Rs. 8½ per month; that is, 30 dollars a year.¹²⁷ These rates were much above the Ricardian "iron law of wages" when compared with the current prices and the purchasing power of money during the two periods.¹²⁸

As for the salaries paid by the government, they were liberal enough to satisfy the officers' appetite. They were, humanly speaking, calculated to prevent the desire for "squeeze."¹²⁹ The common soldier of the Maurya Empire received 500 *panas* or \$125 per year. The highest salary in the third and fourth centuries *B. C.*, for example, that for the generalissimo was 48,000 *panas* (\$12,000) a year. The *samāhartā* (collector-general) was paid at half this rate. The earning of a

¹²⁴ See details in the *Indian Antiquary*, 1905, pp. 55, 56, 57.

¹²⁵ *Ibid.*, p. 59.

¹²⁶ *Ibid.*, p. 53.

¹²⁷ Aiyangar, p. 181.

¹²⁸ *Indian Antiquary*, 1905, p. 53; One Rupee in Maurya India bought 49½ *seers* (Madras) of rice. In British India one Rupee buys not more than 6-7 *seers*. Aiyangar, p. 183.

¹²⁹ *Vide* the list of salaries in the *Arthashastra*, V, iii, *Indian Antiquary*, 1909, pp. 263-264.

¹²³ The rate was 15% per year, cf. Law, pp. 171-177. The usual rate at Athens was 12% to 18%. *Vide* Schömann, p. 435.

middle class man in southern India, for instance, an accountant under the Cholas was Rs. $16\frac{2}{3}$ per month, that is, \$60 a year.¹³⁰ Payments were either in kind or in money. The Cholas used to pay even handicraftsmen often in kind for customary work. Under the Mauryas payment in gold might be commuted for that in kind at fixed rates.¹³¹

We are not concerned here with "index numbers" or with statistics of wages and prices or with the manner in which the tariff, if it was really protective, may have affected the course of industries and commerce. The stray figures for the third and fourth cen-

turies *B. C.* and the eleventh and twelfth centuries *A. D.* may be taken for what they are worth. Only it is necessary to bear in mind that in British India the average per capita income is Rs. 20 or \$6 per annum. On the whole, it may reasonably be concluded that the financial burden of *pax sârva-bhaumica*, howsoever heavy it might be, whether absolutely or relatively, was easily borne by a contented peasantry and working class, a prosperous industrial and commercial aristocracy, and last, but not least, a well-paid civil service and army, especially in view of the fact that under Chandragupta and Asoka (third century *B. C.*) the people of India had the conscious satisfaction of being citizens of the first and greatest power of the world.

¹³⁰ Aiyangar, p. 181.

¹³¹ *Indian Antiquary*, 1909, p. 264. For 5 *panas* one obtained 165 *sers* (Madras standard). *Indian Antiquary*, 1905, p. 53.

Have American Wages Permitted an American Standard of Living? *

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A Review of the Important Inquiries and Their Findings, 1890-1920

By ABRAHAM EPSTEIN

Director, Pennsylvania Old Age Pension Commission, Harrisburg, Pennsylvania

AT no time before, probably, has there ever been greater popular confusion and obscurity as to what constitutes an American standard of living and what is the relation of wages earned and the standard of living necessary, as at this period. Indeed, the controversy between capital and labor in regard to this question at this time is becoming very grave, and is fraught with the utmost danger. Industrial concerns and railroad companies are daily announcing reductions in wage rates, justifying these on the

ground that prices have come down so much during the past year that there is no excuse for the "high war-time" wages. On the other hand, the employees are, with rare exceptions, vehemently and vigorously opposed to the present methods of arbitrary wage cuts, contending that there has as yet been no substantial decrease in the cost of living which would justify cutting the rates of pay. They furthermore point out that as most of the reductions at this time are made in the rates of the unskilled workers it will reduce these workers again to the prewar level of wages which were found in many instances to have been below the American standard of living. They demand

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a wage compatible with the subsistence standard set by government authorities and competent students as necessary to support a family consisting of the father, mother and three small children, with the absolute necessities of life.

What has been the relation of the wages earned and the minimum standard of subsistence in the past? Doubtless this question has often been asked before. Unfortunately, however, while many local and national investigations have been made of costs of living and wages in the United States, the great majority of these have covered but short periods. Compilations of these studies for a number of years have been few in number. In the article that follows, an effort has been made to present a summary of the results of official and authoritative investigations on standards of living and wages earned covering a period of thirty years—from 1890 to the latter part of 1920. The findings of these investigations and the relation of the costs of living and wages earned is presented here for each year. It is hoped that an analysis of these facts may help to shed some light upon this important and very much mooted question.

Professor John A. Ryan in his book, *A Living Wage*, made an exhaustive and careful study of the Census Reports of 1890 and 1900, as well as of numerous other statistical reports prepared by the federal and various state labor bureaus, regarding wages and the cost of living during the last decade of the nineteenth century and the beginning of the twentieth century. His studies of the cost of living during that decade convinced him that:

The conclusions that seem to be abundantly justified by the facts brought out may, therefore, be stated as follows: first, anything less than \$600 per year is not a Living Wage in any of the cities of the United States; second, this sum is probably

a Living Wage in those cities of the Southern States in which fuel, clothing, food and some other items of expenditures are cheaper than in the North; third, it is possibly a Living Wage in the moderately sized cities of the West, North and East; and fourth, in some of the largest cities of the last-named regions, it is certainly not a Living Wage.¹

In addition to Professor Ryan's estimate, the United States Bureau of Labor in 1901 studied the incomes and expenditures of 25,440 families whose average size was 4.88 persons. This investigation showed that it cost at least \$700 on the average to support each of these families.²

After he had established his standard, Professor Ryan made a further study of wage reports and, taking his estimate as the minimum basis, presented the table of underpaid workers in the different industries on page 171.

The important feature of the table, summarizes Professor Ryan,

Is the percentages, which may be taken as fairly representative of average wage conditions in manufacturing and railway industries. And the general level of remuneration in these two fields is undoubtedly quite as high as the average of the other urban occupations. It is to be noted, moreover, that these percentages reflect the conditions of 1890 and 1900–1903, when wages were about as high as they are at present (1905) fully as high as the average of the last fifteen years, and higher than that of the last twenty-five years.³

During the same period, according to Streightoff,⁴ the yearly remuneration of the garment makers in 1894 in New York ranged from \$249.94 for knee-pants-makers to \$402 for cap-makers; and the male machine operators and

¹ John A. Ryan, *A Living Wage*, p. 150.

² Maurice Parmelee, *Poverty and Social Progress*, p. 87.

³ *Ibid.*, p. 161.

⁴ *The Standard of Living*, by F. H. Streightoff pp. 60–63.

<i>Employes and Years Represented</i>	<i>Number of Adult Males Represented</i>	<i>Per Cent of Adult Males Under-paid</i>
In 50 manufacturing industries in 1890	757,865	51
In iron and steel, 1891	17,650	81
In railway occupations, 1889	206,604	85
In 34 manufacturing industries, 1890	93,544	66
In 34 manufacturing industries, 1900	142,638	64
In railway occupations, 1900 and 1903	2,125,717	72
In manufacturing, Mass., 1890 and 1891 . . .	367,311	59
In " Wis., 1891	70,326	61
In " Minn., 1899 and 1900 . . .	99,872	53
In " Mass., 1899 and 1900 . . .	511,727	64
In " Wis., 1899, 1900, 1901 . .	217,522	75
In " N. J., 1899, 1900, 1901 . .	387,903	60
In " Ill., 1900 and 1901	135,890	58 ⁵

handworkers of Chicago earned, on the average, \$430 and \$325 respectively, the average recompense of all male workers in the cloak-making trades being \$330.42. In 1900, in North Dakota, of the 2,168 men investigated, the wages averaged \$535; Minnesota recorded 66,889 workmen at an average of \$492; and Wisconsin 120,131, at \$449. In the same year the average earnings of male cotton operators was \$405.69 in Massachusetts, \$243.34 in Georgia, \$216.39 in North Carolina, and \$207.58 in South Carolina.

In analyzing the labor reports of the states of New Jersey and Massachusetts for 1901, Streightoff found that 64.75 per cent of all adult male factory employes in the manufacturing industries of the former state and 62.86 per cent of the male employes in similar industries in the latter state earned less than \$12 per week, or approximately \$600 per year.⁶

A study of family incomes made by the Massachusetts Bureau of Statistics of Labor in 1902 revealed that it cost on the average about \$800 to support each of these families, whose average size was 4.8 persons.⁷ In the same year also the New York Bureau of Labor

Statistics estimated that an income of \$10 a week, or \$520 a year was inadequate for a family living in a city.⁸

From the 1902 reports of the labor bureaus, Streightoff⁹ found that 62.51 per cent of the male employes in the manufacturing industries in New Jersey, and 61.35 per cent of male employes in Massachusetts earned less than \$12 a week or approximately \$600 per year. The Indiana returns for the same year showed the average earnings of pumpmen as \$2.20 per day, while that of trappers who worked only 215 days in the year was \$1.13 per day. Professor Ryan also points out that the Interstate Commerce Commission's reports for the year 1903 revealed that 72 per cent of the more than two million railroad employes investigated earned less than \$600 per year.

In 1904 Robert Hunter stated that:

It was shown by the Massachusetts Bureau of Statistics that it takes \$754 a year for a family of five persons to live on. John Mitchell has said that a minimum wage of \$600 a year is necessary in the anthracite district for a worker with a family of ordinary size. The New York Bureau of Labor considers that \$10 a week or \$520 a year is inadequate for city work-

⁵ *A Living Wage*, p. 160.

⁶ *The Standard of Living*, Appendices A and B.

⁷ *Poverty and Social Progress*, p. 87.

⁸ *Ibid.*, p. 88.

⁹ *The Standard of Living*, Appendices A and B, p. 61.

men. A prominent official of one of the largest charities in New York City thinks that \$2 a day, or about \$624 a year, is necessary for a family of five in that city.¹⁰

From these estimates Hunter expressed the opinion that \$624 was not too much for a family in New York City. "When one gets below these figures," he declared, "every dollar cut off may mean depriving a family of a necessity of life, in times of health even, and unquestionably in times of sickness." But in order to be thoroughly conservative he estimated more or less arbitrarily, \$460 a year as essential to defray the expenses of an average family,—a father, a mother, and three children,—in the cities and industrial communities of the New England States, of New York, Pennsylvania, Indiana, Ohio and Illinois. "This estimate," he concluded, "would approach very nearly a fair standard for the poverty line; that is to say, if any working-class family should be unable to obtain this wage, they would in all likelihood be unable to obtain the necessities for maintaining physical efficiency."¹¹

One of the most extensive investigations of wages in the United States was made during 1903-1904 by the United States Census Bureau. This investigation covered 3,297,811 wage-earners of whom 2,619,025 or 79.4 per cent were men; 588,599 or 17.9 per cent were women and 90,167 or 2.7 per cent were children. The Census Bureau gives the results below.

The table below indicates that during the period studied, over one-quarter of the male workers were earning less than \$8 a week or less than \$420 a year; 46 per cent earned less than \$10 a week, while over 70 per cent or nearly three-fourths were earning less than \$15 a week, or \$780 a year. Ninety-eight per cent of all wage-earners earned less than \$25 a week. The average for all classes is \$10.06, or approximately \$520 per year: the average for men being \$11.16, for women \$6.17, and for children \$3.46.

In the same year Streightoff made another estimate of the distribution of income in the United States derived primarily from labor.¹²

EARNINGS OF MALES, SIXTEEN YEARS AND OVER, ENGAGED IN MANUFACTURE
IN THE UNITED STATES IN 1904¹³

Weekly Wage	Number	Percentages	
		Actual	Cumulative
Under \$3	56,346	2.2	2.2
\$3 but under \$4	57,597	2.2	4.4
\$4 " " \$5	87,739	3.4	7.8
\$5 " " \$6	103,429	4.0	11.8
\$6 " " \$7	161,940	6.2	18.0
\$7 " " \$8	196,981	7.5	25.5
\$8 " " \$9	207,954	7.9	33.4
\$9 " " \$10	343,812	13.1	46.5
\$10 " " \$12	409,483	15.6	62.1
\$12 " " \$15	450,568	17.2	70.3
\$15 " " \$20	385,647	14.7	94.0
\$20 " " \$25	106,046	4.0	98.0
\$25 and over	51,511	2.0	100.0

¹⁰ Robert Hunter, *Poverty*, pp. 51-53.

¹¹ *Poverty*, pp. 51-53.

¹² *Poverty and Social Progress*, p. 68.

¹³ *Report of Manufactures, Census Bureau Part IV*, pp. 645-8, 1905.

Approximate number of males, 16 years old or over, employed in 1904	19,658,000
Number earning under \$600 yearly, or under \$12 weekly	12,738,000
Number earning \$600, but under \$1,000 yearly, \$12 but under \$20 weekly	5,315,000
Number earning \$1,000 or more yearly, or \$20 or more weekly	1,605,000

On the basis of the above data, Streightoff concluded that in 1904 over 60 per cent of the males, at least 16 years of age, employed in manufacturing, mining, trade, transportation, and a few other occupations were earning less than \$626 per annum, or less than \$12 per week on an average. Summarizing the official reports which he studied, Streightoff also shows¹⁴ that 46.5 per cent of the Illinois miners earned less than \$500 per year. He gives the percentages of adult males, exclusive of officers, clerks and salaried persons, engaged in manufacturing in the same year, whose earnings were less than \$12 per week, as 62.35 in Massachusetts; 60.8 in New Jersey; 58.05 in Missouri; 31.15 in Illinois, and 67.95 in Wisconsin.

From an intensive study of the budgets of 200 wage-earning families in New York City during the years 1903 and 1905, Mrs. More concluded as a result of her investigations that "a fair living wage for a workingman's family in New York City should be at least \$728 a year or a steady income of \$14 a week."¹⁵

According to the census of manufactures, the 4,244,538 men engaged in manufacturing in 1905 received an average income of \$533.95. Of 13,796 railway men in North Carolina, in the same year, 11,295 were found to have averaged less than \$1.62 per day or \$500 per year. In thirty Maine clothing factories in 1905, 234 men investigated received wages averaging \$10.82 per week, while 1,078 women earned a mean weekly wage of \$6.78. Of the

adult males engaged in manufacturing industries during the same year, 58.5 per cent in New Jersey and 57.09 in Massachusetts earned less than \$12 per week.¹⁶

In concluding his estimates of what constitutes a living wage Professor Ryan states:

According to careful studies and estimates made by several groups of investigators in 1906, the minimum cost of decent living for a family of moderate size was: In New York, \$950; in Chicago, \$900; in Baltimore, \$750; while the average for these and several other large cities was \$938.

Professor Ryan therefore declares:

The conclusion seems justified that at least sixty per cent of the adult male workers in the cities of the United States are today (1905) receiving less than \$600 annually.¹⁷

During 1906, the percentages of adult male employes engaged in manufacturing industries who earned less than \$12 per week were as follows:¹⁸ In New Jersey, 57.49; in Massachusetts, 55.12, while in San Francisco, where wages have always been higher, of all employes, including women and children, in the same year 63.40 per cent earned less than \$12 per week. In Indiana during the same year the earnings of railway workers were found as follows: 1,870 conductors earned an average of \$1,084.93; 2,287 engineers averaged \$1,284.69; 4,408 station men averaged \$508.37, and 88,967 track men earned \$378.93 each on an average that year.¹⁹ The 30,742 miners in-

¹⁶ *The Standard of Living*, pp. 59-60-62, and Appendices A and B.

¹⁷ *A Living Wage*, pp. 150 and 162.

¹⁸ *The Standard of Living*, p. 64.

¹⁹ *The Standard of Living*, p. 60.

¹⁴ *The Standard of Living*, pp. 60-64.

¹⁵ L. B. More, *Wage Earner's Budgets*, pp. 269-70.

vestigated in Illinois in 1906 worked only 189.6 days during that year and earned on an average of \$480.82.²⁰ Of 9,679 men at work in cotton factories in New Hampshire during the same year the average wage amounted to \$417.31.

Little improvement occurred the following year. In 1907, of the adult male factory employes (exclusive of officers, clerks and salaried men) engaged in manufacturing industries in New Jersey, 54.5 per cent of the total earned less than \$12 per week, while of those engaged in the same industries in Massachusetts, 51.64 per cent earned a similar wage.²¹

Quite a large number of investigations regarding both minimum standards required and wages actually received were carried on during 1908. The United States Bureau of Labor estimated that in Fall River, Massachusetts, in 1908, the minimum standard of living for an average family could not be less than \$484.41 per year. This standard the bureau defined as follows:

If the family live upon this sum without suffering, wisdom to properly apportion the income is necessary. There can be no amusements or recreations that involve any expense. No tobacco can be used. No newspapers can be purchased. The children cannot go to school because there will be no money to buy their books. Household articles that are worn out or destroyed can not be replaced. The above sum provides for neither birth nor death nor any illness that demands a doctor's attention or calls for medicine. Even though all of these things are eliminated, if the family is not to suffer, the mother must be a woman of rare ability. She must know how to make her own and her children's clothing; she must be physically able to do all the household work, including the washing. And she must know enough to purchase with her allowance food that has the proper nutritive value.²²

²⁰ *The Standard Living*, p. 61.

²¹ *Ibid.*, Appendices A and B.

²² *Poverty and Social Progress*, p. 89.

The bureau estimated that a fairer standard of living for Portuguese, Polish and Italian families required at least \$690.95, and \$731.99 for English, Irish and Canadian-French families. This higher standard, the bureau said:

Will enable him (the father) to furnish them (his family) good nourishing food and sufficient clothing. He can send his children to school. Unless a prolonged or serious illness befall the family, he can pay for medical attention. If a death should occur, insurance will meet the expense. He can provide some simple recreation for his family, the cost not to be over \$15.60 for the year. If this cotton-mill father is given employment 300 days out of the year, he must earn \$2 per day to maintain this standard. As the children grow older and the family increases in size, the cost of living will naturally increase. The father must either earn more himself or be assisted by his younger children.

But even this standard is by no means an ideal one. It does not allow savings to meet the contingency of any unusual event, such as lack of employment or accident to the father. It makes no provision for old age. It provides for culture wants only in the most limited manner, viz., one paper costing \$1 a year. It provides elementary schooling for the children up to their twelfth year only.²³

The Massachusetts Bureau of Statistics' investigations during the same year showed that the average wage of all cotton-mill employes in Fall River was only \$447.40, quite below even the minimum standard set for the same city.²⁴ The average remuneration of all the 176,377 anthracite miners in Pennsylvania in that year was \$496.13, just above the lowest standard; that of bituminous miners averaged only \$447; while the average for all the employes amounted only to \$458.29,²⁵ considerably less than the minimum required. Of the male employes engaged in

²³ *Ibid.*, p. 89.

²⁴ *Ibid.*, p. 60.

²⁵ *The Standard of Living*, p. 61.

factories, 56.7 per cent in New Jersey and 51.70 in Massachusetts earned less than \$12 per week.²⁶

In 1908 the railroads of the United States employed 61,215 firemen at an average per diem compensation of \$2.64; 57,668 enginemen at \$4.45; 43,322 conductors at \$3.81; 114,580 other trainmen at \$2.60; 41,419 section foremen at \$1.95; 299,448 other trackmen at \$1.45; and 46,221 switch tenders and crossing watchmen at \$1.78.²⁷

In the same year, the New Jersey roads employed some 42,514 men at an average annual wage of \$657.22, considerably below the fair standard set for Fall River.

On the basis of numerous statistical reports of wages in Massachusetts during 1908 furnished by the different state bureaus, Nearing concluded that:

It may be fairly stated that no more than one adult male wage-earner in every twenty employed in the industries of Massachusetts receives, in annual earnings, for a normally prosperous year, more than \$1,000. On the other hand, more than one-third of all the adult males are paid wages under \$500; more than one-half receive wages under \$600; while nearly three-quarters receive less than \$700 annually.²⁸

In cotton goods, the leading Massachusetts industry, Nearing found that wages were very much lower than in the state at large, nearly three-fifths of all the adult male employes having received less than \$459 in 1908.

From budget studies made by Dr. R. C. Chapin in 1909, the New York State Conference of Charities and Corrections concluded that:

It is fairly conservative to estimate that \$825 is sufficient for the average family of 5 individuals, comprising the father, mother and three children under 14 years of age to

maintain a fairly proper standard of living in the Borough of Manhattan.²⁹

In 1909, Nearing made a study of wages in New Jersey, similar to that which he had made the year before of wages in Massachusetts, and found that:

For the state of New Jersey at large, and for the five industries employing the largest numbers of persons, it appears that after deducting the known unemployment, between one-third and one-half of the adult males received less than \$500 in 1909; that from one-half to three-fifths received less than \$600; that about three-quarters were paid less than \$750; nine-tenths received less than \$950; while from one-twentieth to one-tenth received \$950 or over. The wages of adult females were very much lower. From three-quarters to four-fifths received less than \$400; nine-tenths were paid less than \$500, while a vanishing small percentage received an annual wage of more than \$750.³⁰

A study of wages in Kansas and of its leading industries in 1909, by the same writer, showed that while the industrial conditions in Kansas differ from those in Massachusetts and New Jersey, about one-third of the male employes in the car and shop construction, and in the slaughtering industries, received less than \$500, one-half less than \$600 and three-fourths received less than \$750 per year. The proportion of females earning less than \$520 was exactly twice that of males.³¹

Nearing's conclusions are fully borne out by official investigators. The 1910 census reports give the average number of wage-earners engaged in manufacturing in 1909 as 6,631,931. The total amount spent in wages in those industries during that year was \$3,434,734,000. When this total is divided by

²⁶ *The Standard Living.*, Appendices A and B.

²⁷ *Ibid.*, p. 61.

²⁸ Scott Nearing, *Wages in the United States*, 57-58.

²⁹ R. C. Chapin, *The Standard of Living Among Workingmen's Families*, in *New York City*, p. 281.

³⁰ *Wages in the United States*, p. 72.

³¹ *Wages in the United States*, pp. 85-87.

the average number of wage-earners the quotient is \$517.91, which was the average wage during that year and which is below \$10 per week.

The United States Department of Agriculture also gave the farm wages during the year 1909. Farm labor by the day in the lowest type of work averaged \$1.71 in 1909, outdoor farm labor with board averaged \$1.43 a day, while the average monthly wage for outdoor farm labor quoted for the year without board was \$25.46 or \$305.52 per year.³²

In 1910, after a most exhaustive study of wealth possessions, Dr. Willford I. King estimated that 95 per cent of the families of the United States had incomes of less than \$2,000 a year; 82 per cent had incomes of less than \$1,200; while 69 per cent were living on less than \$1,000.³³

An elaborate Congressional investigation of the iron and steel industry in the United States, covering 172,706 employes, found the wage rates per year as per May, 1910 as follows: 8 per cent earned under \$500, 60 per cent under \$750, 85 per cent under \$1,000, and 97 per cent under \$1,500. The separate rates of the employes of the Bethlehem Steel Company during January of that year were found to be less than \$500 per year in one-third of the cases; less than \$625 in two-thirds, while only 8 per cent averaged \$1,000 and over.³⁴

The census reports also show that in 1910 the average number of wage-earners engaged in mining industries was 1,093,286. The total wages earned by them was \$606,135,238. The average wage secured when the total sum earned is divided by the total num-

ber of workers is \$554.42, or \$10.66 per week.

From the exhaustive studies made by Streightoff of incomes and actual expenditures in different parts of the country, he presented for 1911 the following minimum of expenditures necessary for a family consisting of a husband, a wife, a boy between 11 and 14, a child between 7 and 10, and a baby under three. These expenditures obviously include only a minimum of the most essential necessities:

Food.....	\$297
Rent.....	100
Clothing.....	120
Fuel.....	40
Church and other organizations....	20
Medical attention.....	12
Amusement.....	20
Miscellaneous.....	40
	<hr/>
	\$649

Mr. Streightoff concludes that:

The above would show that it is conservative to set \$650 as the extreme low limit of a Living Wage in cities of the North, East, and West. Probably \$600 is high enough for the cities of the South. At this wage there can be no saving and a minimum of pleasure. Yet there are in the United States at least five million industrial workmen who are earning \$600 or less a year.

Streightoff then calls attention to the fact that:

It will be remembered that 1,116,199 men engaged in manufacturing alone are earning no more than \$400 per annum, and 2,009,914 are receiving no more than \$500. If all industrial occupations are considered, probably four million men are not enjoying annual incomes of \$600.³⁵

During the period of 1911-12, a number of wage studies were brought out by the United States Department of Labor. In the cigar industry studied in that period, of 3,615 males investi-

³² United States Dept. of Agriculture, Bureau of Statistics, *Bulletin 99*, 1912.

³³ W. I. King, *Wealth and Income of the People of the United States*, pp. 214-230.

³⁴ Scott Nearing, *Income*, p. 90.

³⁵ *The Standard of Living*, p. 162.

gated, three-tenths received a wage of less than \$750, while half of these studied earned wages under \$1,000 per year. Four-fifths of the 7,551 females investigated received a wage of less than \$750 per year.³⁶

The Tariff Board made extensive investigations during the same period of wage rates in the cotton industry. These studies disclosed that in the North, 5 per cent and in the South, 22 per cent of the males 16 years of age and over in the cotton industry received a wage rate of less than \$250 per year. Half of the employes in the North and more than four-fifths of those employed in the South were paid at the rate of less than \$500 per year. The figures for women range much lower than those for men.³⁷

For the dyeing and finishing woollens and worsted industry the Tariff Board reports that four-fifths of the male dyers earned less than \$500 and nine-tenths less than \$700 per year.³⁸

The wages of employes engaged in woolen, worsted and cotton mills of Lawrence, Massachusetts, in 1911 were similar to those found by the Tariff Board. In that city half of the men studied received wages below \$500 while seven-eighths earned less than \$600. In the case of female employes

more than four-fifths earned less than \$500, while 94 per cent received less than \$600.³⁹

The United States Labor Department in its investigations in the textile industry brought out similar results. In the cotton industry three-fifths of the males and four-fifths of the females received wages of less than \$500 per year, while 99 per cent of the females and 97 per cent of the males earned less than \$750 per year.⁴⁰

In 1911-12 the Oklahoma Department of Labor reported that of 668 male wage-earners in the telephone and telegraph industry 27 per cent received less than \$500; 78 per cent less than \$750 and 95 per cent less than \$1,000 per year. Of the 1,143 female workers employed in the same industry 17 per cent were earning under \$250, 96 per cent under \$500 and 99 per cent under \$750.⁴¹

From reports compiled by the different State Bureaus of Labor, Nearing found the percentages of wages during the years 1911-12 as recorded below.

In 1913, Nearing, in his book *Financing the Wage Earner's Family* (p. 97), concluded from his examination of numerous reports and wage studies that:

State	Year	Percent Earned	Percent Earned
		Less than \$500	Less than \$750
California.....	1911	7.7	30
Iowa.....	1912-13	12.	61
Massachusetts.....	1912	28.	67
New Jersey.....	1911	36.	71
Oklahoma.....	1911	17.	68 ⁴²

³⁶ *Income*, p. 95.

³⁷ *Report of the Tariff Board on Cotton Manufacture*, 62nd Congress, 2nd Session, House Document 643, Government Printing Office, 1912, Vol. II, 637-651.

³⁸ *Income*, pp. 91-92.

³⁹ *Report on The Strike of Textile Workers in Lawrence, Mass.*, Charles P. Neil, Senate Document 870, 62nd Session, 1912, p. 74.

⁴⁰ *Income*, p. 93.

⁴¹ *Annual Report of the Department of Labor, Oklahoma, 1911-12*, p. 232.

⁴² *Income*, p. 100.

The available data indicate that a man, wife, and three children under fourteen can not maintain a fair standard of living in the industrial towns of Eastern United States on an amount less than \$700 a year in the Southern, and \$750 a year in the Northern states. In the large cities where rents are higher, this amount must be increased by at least \$100.

A joint investigation carried on during that year by the Consumers' League of Eastern Pennsylvania and the Department of Labor and Industry of that state, showed that the wages of women in Philadelphia department stores were as follows: 16.5 per cent received less than \$5 per week, 63.8 per cent more earned between \$5 and \$10 and only 3.2 per cent received \$15 or over per week.

The year following, Professor J. H. Hollander of Johns Hopkins University, estimated:

That in order to maintain a decent standard of living in the United States for an average family of five, an annual income of \$600 to \$700 is insufficient; that \$700 to \$800 requires exceptional management and escape from extraordinary disbursements consequent upon illness or death; and that \$825 permits the maintenance of a fairly proper standard.⁴³

An even higher estimate during the same year (1914) was set by the Bureau of Personal Service of the Board of Estimate and Apportionment of New York City, which declared \$845 as the least minimum of subsistence for families of unskilled laborers in that city. The New York Factory Investigating Commission declared that \$876 was the lowest minimum wage possible for the year 1914.

The actual earnings during this period were found by the Pennsylvania Department of Labor and Industry in a study of over 20,000 industrial es-

tablishments to have averaged \$720 a year or \$14.40 a week for all males—quite below the minimum standard set. The average annual wage for all females was \$335 or slightly over \$6 a week.

The total amount paid in wages in the states of Massachusetts and Pennsylvania in the year 1914 amounted to \$869,262,517. The number of employes in these two states was 1,531,176 and the average wage per worker amounted to \$568 per year.⁴⁴ The New York State Industrial Commission, which in that year began to compile figures of nearly 600,000 factory and office workers, found that the average weekly wage for the last six months of 1914 amounted to \$12.48, which would give an annual wage of \$648.96 if employed fifty-two weeks in the year.

In 1915 Lauck and Sydenstricker after a comprehensive study of wages and costs of living stated that four-fifths of the heads of families obtained less than \$800 per year, while two-thirds of the female wage-earners were paid less than \$400 per year. According to a statement of the Chamber of Commerce of Akron, Ohio, the 30,511 workers engaged in the rubber industry in that city received an average annual wage of \$628 during the year of 1915.⁴⁵ In the same year the Pennsylvania Department of Internal Affairs, which keeps records of the total payroll amounts and the number of workers employed in that state, found that the average weekly wage per wage-earner (exclusive of salaried and office workers) amounted to \$581.68. The New York Industrial Commission gave the average weekly wage received in that state during the year 1915 as \$12.85, or \$668.20 per year.

The weekly wages received during

⁴⁴ David Friday, *Profits, Wages and Prices*, 1920, p. 102.

⁴⁵ *Ibid.*, p. 105.

⁴³ J. H. Hollander, *The Abolition of Poverty*, p. 9.

the year 1915 throughout the United States in the various industries have been compiled by the Bureau of Applied Economics from the published surveys of the United States Bureau of Labor Statistics. These were found as follows in the different industries⁴⁶:

<i>Industry</i>	<i>Per Capita earnings per week—1915</i>
Boots and Shoes.....	\$12.12
Cotton finishing.....	10.54
Cotton manufacturing.....	8.31
Hosiery and underwear.....	7.75
Iron and steel.....	11.76
Men's ready-made clothing..	11.92
Silk manufacturing.....	8.99
Woolen manufacturing.....	9.70
Car building and repairing...	13.20
Cigar manufacturing.....	9.33
Automobile manufacturing..	17.23
Leather manufacturing.....	11.76
Paper making.....	13.20

An analysis of the standard of living in the District of Columbia by Professor Ogburn, for the Bureau of Labor Statistics in 1916, led him to conclude that:

An average family of man, wife and three children, of ages 4, 6 and 8 years, in the District of Columbia in 1916 was in debt if the annual income was less than \$1,155.⁴⁷

During 1915-16, the average daily wage for males in many Pennsylvania establishments reported by the Department of Labor and Industry as working on war contracts was found to be only slightly higher in 1916 than in 1914, \$2.76 in the latter year as against \$2.40 in 1914. For females the rise reported was from \$1.11 to \$1.30. The average daily wage of males engaged in public service industries, such as street and steam railways, etc., was \$2.55.⁴⁸ The

average wage received by all wage-earners in Pennsylvania as given by the Department of Internal Affairs was \$737.96 in the year 1916. Salaried and office workers were not included in this tabulation. In the rubber industry of Akron, Ohio, the average annual wage according to the Chamber of Commerce of that city amounted to \$759 in 1916. The wages for that year as found by the New York State Industrial Commission were very similar. The average weekly wage was \$14.43, or, if worked for fifty-two weeks in the year, \$750.36 per year.

The year 1914 may be considered a landmark for both wages and costs of living. Since then money wages have increased in all industries. Even greater, however, has been the rise in the cost of living. Standards of living in terms of money wages need therefore considerable adjustment and a revaluation in purchasing power. According to the Pennsylvania Health Insurance Commission, the standard "minimum of subsistence" budget was estimated in 1914 as \$845 by the Bureau of Personal Service of the Board of Estimate and Apportionment of New York City for unskilled laborer's families; \$875 was the estimate made by the New York Factory Investigation Commission in 1914, and the \$900 estimate by Dr. Chapin for a family of five in 1907 became in June, 1918, \$1,320, \$1,360 and \$1,390 respectively. Similar estimates for 1918 were made by the Commission of the Interchurch World Movement in its Report on the Steel Strike.

The Philadelphia Bureau of Municipal Research stated in December, 1917, that the necessary minimum cost of healthful living for a family of two adults and three children was \$1,200 a year. But in the autumn of 1918 it found \$1,636.79 as necessary for a similar standard of living.

⁴⁶ *Wages in Various Industries*, 1919, p. 60, Bureau of Applied Economics, Washington.

⁴⁷ *Quarterly Publication of the American Statistical Association*, June, 1919, p. 16.

⁴⁸ *Pennsylvania Health Insurance Commission Report*, p. 91.

In November, 1918, the United States Bureau of Labor Statistics estimated that the minimum necessary for subsistence for an average family in a large eastern city was about \$1,500. In the same year, the National War Labor Board drew up a "minimum comfort" budget which amounted to \$1,760 per year for a family of five.⁴⁹

It is interesting to note that the above estimates regarding the minimum budget necessary for subsistence, although showing some variation as would be expected, do not show considerable differences. However, in 1918 the United States Bureau of Labor Statistics made an investigation of the budgets of working families in a number of cities. The average actual expenditures of these families per year in the different cities investigated follows below.

In summarizing the data, the bureau found that of 12,096 white families

investigated in 92 industrial centers scattered throughout the country comprising 4.9 average persons, the average yearly expenses per family was \$1,434.36 in 1918.⁵⁰

In the 1918 investigations of the Pennsylvania Commission on Health Insurance the following data is given:

In the Philadelphia Survey which covered 1,850 families in seven districts in Philadelphia the average family income was but \$21.60 a week, and almost a third of these families contained over five persons—the normal standard.

In the Visiting Nurse Study, 80.6 per cent of the 438 families had incomes of less than \$30.00 a week. In the Sickness and Dependency Study 94.3 per cent of the families had incomes of less than this amount.

Wages for women, proverbially lower than those for men, proved in the Working Women's study to be in 93.1 per cent of the cases under \$25.00 a week; in 92 per cent of the cases, under \$20.00.

<i>City</i>	<i>Number of Families Investigated</i>	<i>Average Persons in Family</i>	<i>Total Average Yearly Expense per Family</i>
Baltimore (White)	195	4.8	\$1,260.96
Boston	407	5.3	1,438.13
Bridgeport, Conn.	143	4.6	1,540.24
Buffalo	256	4.6	1,460.00
Chambersburg, Pa.	77	4.9	1,241.90
Dover, N. J.	74	5.3	1,608.92
Fall River, Mass.	158	5.4	1,320.84
Johnstown, N. Y.	78	4.5	1,308.51
Lawrence, Mass.	109	5.3	1,504.67
Manchester, N. H.	112	5.2	1,370.83
Newark	147	4.7	1,445.41
New York	518	4.9	1,525.66
Philadelphia and Camden, N. J.	301	4.9	1,469.40
Pittsburgh, Pa. (white)	254	5.1	1,412.10
Portland, Me.	97	4.9	1,412.84
Providence, R. I.	158	5.3	1,303.18
Rutland, Vt.	80	5.1	1,264.29
Seranton	151	5.2	1,344.99
Syracuse, N. Y.	158	4.9	1,407.03
Trenton, N. J.	100	4.4	1,418.50
Westfield, Mass.	74	5.2	1,494.84
Wilmington, Del.	98	4.6	1,640.50

⁴⁹ *Pennsylvania Health Insurance Commission Report*, p. 94.

⁵⁰ *Labor Review*, August, 1919, p. 118.

In the Pittsburgh Factory Investigation, made in August–November, 1918, covering the work places of over 9,000 women, it was found that in 70 per cent of the operations the wages were between \$5.00 and \$15.00 per week. In only two processes were the weekly wages over \$25.00.

In a study made by the Consumers' League in New York in 1916–17 among 417 women working in steam laundries, it was found that 78.3 per cent earned less than \$10.00 a week, and almost half earned less than \$8.00.

The Kensington Survey, which covered the most representative industrial group, showed that more than half—56.6 per cent of the 608 families—had incomes under \$30.00 a week. Forty-two per cent were living on less than \$25.00 a week.⁵¹

From July 1, 1914, to April 1, 1918, the wholesale prices of 46 essential commodities given in Bradstreet's Trade Journal showed a rise of 115 per cent. According to the Bureau of Labor Statistics, its study of the increase in the cost of living in shipbuilding centers in 1918 showed that the cost of living for white families had risen 67.17 per cent in August, 1918, over the cost in December, 1914, in Philadelphia; in New York it was 62.07 per cent in December, 1918, over December, 1914.

While the cost of living and prices have thus increased from 60 to 115 per cent, a study of the rise in wages made by H. S. Hanna and W. J. Lauek, led them to conclude⁵²:

That the rise in wages between 1914–15 and December, 1917, or January, 1918, was only 18 per cent for anthracite miners; 26 per cent for machinists in the Philadelphia Navy Yard; 30 per cent for bituminous miners working by hand, and 34, 36 and 37 per cent respectively for shipbuilders, and pipe fitters in the Philadelphia Navy Yard. The rise in the building trades was 12 to 20 per cent. The wages in some industries

had actually decreased, while some remained stationary.

During 1918 in a study of four blocks in Manhattan, wage figures for 377 families were obtained. The incomes of these families in 40 per cent of the cases showed increases between 1917 and January, 1918. In another 40 per cent no increase had come and in 20 per cent an actual decrease had been suffered. There were 574 wage-earners in these families; the wages of 31 per cent of these had increased; 57 per cent had had no increase and 12 per cent had had their wages decreased.⁵³

The Thirty-Third Annual Report of Massachusetts on Statistics of Manufacture states that during the year 1918 the total disbursements in wages paid to labor amounted to \$679,401,273. When compared with the year 1913 the increase in the total wages disbursed amounted to 93.4 per cent. However, the average yearly earnings for all wage-earners without distinction as to the age, sex or skill which in 1917 were \$758.23 per capita, rose only to \$944.65 per capita in 1918. Compared with 1913, when the per capita wage in manufacturing industries was \$569.43, the increase amounts to 65.9 per cent.⁵⁴ During the year 1918, the average wage in Pennsylvania was \$1,213.54. In the rubber industries in Akron, Ohio, it was \$1,173 and in New York State \$1,058.20—quite far below the actual family expenditures during that year as found by the United States Bureau of Labor Statistics in the different cities.

The administrative committee of the National Catholic War Council in its social reconstruction program in 1919 reached the conclusion that the average rate of pay has not increased as fast as

⁵¹ *Pennsylvania Health Insurance Commission Report*, pp. 91–92.

⁵² *Wages and the War*, p. 6.

⁵³ *Pennsylvania Health Insurance Commission Report*, pp. 91–92.

⁵⁴ *Thirty-Third Annual Report Statistics of Manufactures*, 1920, p. 11.

the cost of living. That this conclusion is fully justified and that a considerable number of wage-earners, both men and women, have not been receiving what is generally considered a living wage, even during the time when money wages were at their highest peak, is clearly indicated by the following recent investigations, which throw some additional light upon the continuous chase and struggle between increased prices and increased earning power.

In 1919, the National Industrial Conference Board, an organization composed of employers of labor, in an investigation of the cost of maintaining a minimum standard of living for a representative wage-earner's family of five, reached the conclusion that in Lawrence, Massachusetts, in order to maintain the lowest standard, \$1,385.79 was required, or an average weekly income of \$26.65 the year round. A more liberal standard which would make no provision for savings except such as were secured through insurance was found to require a yearly expenditure of \$1,658.04, or a steady income of \$31.88 per week.⁵⁵

In August, 1919, the United States Bureau of Labor Statistics, in a study of budgets of government employees' families in Washington, D. C., set the

standard necessary for the maintenance of a family of five in that city at \$2,262.47.

The extent to which wages have increased during the same period is significant. The National Industrial Conference Board has recently published a report analyzing the wage changes in several important industries from 1914 to 1919. The average weekly earnings of male employes in the specified industries from 1914 to 1919 are given below.⁵⁶

The figures in several instances show actual decreases between September, 1918 and March, 1919, and not a single group earned the minimum wage necessary for the support of a family with the most necessary comforts, as conservatively estimated by the employers' organization itself.

Early in 1919 the United States Bureau of Labor Statistics conducted extensive wage studies in a number of industries throughout the country. Some of its findings are presented on page 183.⁵⁷

It is of interest to note that the figures here show that a living wage was obtained in only one industry, the women's clothing industry, which is now thoroughly organized, and which only a few years ago was one of the most underpaid industries.

Industry	Sept. 1914	Sept. 1915	Sept. 1916	Sept. 1917	Sept. 1918	March 1919
Boots and shoes	\$14.70	\$15.33	\$16.60	\$19.36	\$24.04	\$25.90
Chemical manufacturing	12.85	13.26	16.10	20.50	26.80	26.20
Cotton "	10.00	10.05	11.85	14.22	20.60	17.10
Metal "	13.18	14.90	17.22	20.09	26.80	24.75
Paper "	12.75	12.75	15.03	19.03	22.40	22.40
Rubber "	14.00	14.95	18.60	22.80	22.60	29.35
Silk "	11.77	12.66	14.10	15.50	21.54	22.69
Wool "	11.52	11.05	13.51	16.97	23.21	18.61

⁵⁵ *The Cost of Living Among Wage-Earners*, Lawrence, Massachusetts, 1919; National Industrial Conference Board, Boston.

⁵⁶ *War Time Changes in Wages*, Sept., 1914, March, 1919, National Industrial Conference Board, 1919.

⁵⁷ *Labor Reviews*, April, 1920, pp. 100-104; March, 1920, pp. 83-86; Feb., 1920, pp. 106-113; May, 1920, pp. 92-107; and June, 1920, pp. 82-84.

<i>Industry and Occupation</i>	<i>Average Actual Earnings</i>	<i>Average Actual Earnings</i>
	<i>per Week for Male</i> <i>Employees</i>	<i>per Week for Female</i> <i>Employees</i>
Paper Box manufacturing	\$19.40	\$11.05
Women's Clothing manufacturing	35.11	15.95
Confectionery manufacturing	18.45	10.08
Overall manufacturing	25.02	12.06
Cigar Industry	20.84	15.54
Men's Clothing Industry	24.79	14.75
Hosiery and Underwear	20.80	12.98
Silk manufacturing	22.79	15.29
Brick manufacturing	20.00	.....
Chemicals manufacturing	20.90	12.35
Glass manufacturing	22.66	19.38
Leather manufacturing	26.03	13.40
Paper and pulp manufacturing	26.47	13.44
Pottery manufacturing	26.60	13.37
Rubber manufacturing	27.04	14.95
Automobile manufacturing	25.87	16.98
Car manufacturing	26.79	.....
Electrical Apparatus manufacturing	25.53	15.30
Foundry manufacturing	26.28	12.66
Machine manufacturing	26.95	12.90
Machine Tool manufacturing	26.74	16.62
Typewriter manufacturing	26.77	14.67

The 1919 Industrial Survey made by the United States Bureau of Labor Statistics covered 2,365 establishments, 28 industries scattered through 43 states, 780 different occupations, including a total of 404,758 employees. These investigations⁵⁸ disclosed that of the 318,946 men workers 151,725, or 47.5 per cent, earned less than 50 cents an hour. As the average number of hours per day was found to have been 7.6, at least half of the male workers earned less than \$22.80 per week. The average weekly wage for all was \$25.58. In the case of the women workers, of the 85,812 persons investigated, 47,917 or 54.75 per cent earned less than 30 cents per hour. The average number of hours here was 7.5 per day, which means that more than half of the female workers earned less than \$13.50 per

week. The average weekly wage for all was \$13.54.

The 1919 minimum wage standards for women workers in the states that have established such were as follows: District of Columbia (mercantile trade) \$16.50; California \$13.50; Washington \$13.20; Massachusetts (candy occupations) \$12.50; and Kansas \$11.00. In 1918-19 the wage investigations of the Massachusetts Minimum Wage Commission showed that from 57 to 98 per cent of the women workers investigated in five industries in that state earned less than \$11.00 per week. In New York the minimum weekly budget set for a single working woman in 1919 was \$16.13. Studies of 500 working girls chosen at random by the New York State and City Consumers' Leagues early in 1920 showed that 443 or 88 per cent of the girls investigated received less than \$16.00 per week. While the cost of living in 1919 increased about 83 per cent, 29 per cent

⁵⁸ *Industrial Survey in Selected Industries in the United States in 1919, Bulletin No. 265, p. 37-38, May, 1920.* United States Bureau of Labor Statistics.

of the women investigated reported no wage increase during the same year.⁵⁹

In December, 1919, the Bureau of Labor Statistics published a complete study of wages and hours of labor in the coal mining industry as found in the early part of that year. This study included 551,646 workers throughout the United States. The actual earnings of these miners in the bituminous fields as studied during one-half month pay roll by states is given as follows⁶⁰:

Commission in 1920, and which were greatly disputed by the representatives of the miners, showed that the average wage of 68,416 miners examined in 1918 was \$1,422, but declined to \$1,234.44 in 1919. The miners presented figures of much lower averages.

The Bureau of Labor Statistics also keeps records of the changes in union wage scales. The year 1913 is taken as the basis of the index and set at 100. Accordingly the rates of wages

AVLRAGE ACTUAL EARNINGS IN BITUMINOUS MINES IN ONE-HALF MONTH PAY-ROLL PERIOD BY STATES

<i>State</i>	<i>Hand Miners</i>	<i>Machine Miners</i>	<i>Loaders</i>
Alabama.....	\$40.41	.....	\$45.88
Colorado.....	47.42	\$73.73	50.65
Illinois.....	47.72	61.02	51.03
Indiana.....	36.47	55.79	40.02
Iowa.....	43.37	52.55	34.17
Kansas.....	42.75	.....	.....
Kentucky.....	34.39	58.62	40.42
Maryland.....	50.57	.....	.....
Missouri.....	36.42	43.27	42.86
New Mexico.....	52.12	36.45	50.80
Ohio.....	63.56	86.86	58.40
Oklahoma.....	53.82	50.66	48.53
Pennsylvania.....	57.49	72.02	55.21
Tennessee.....	34.08	26.25	33.36
Utah.....	57.66	92.07	57.95
Virginia.....	.....	52.66	38.93
West Virginia.....	52.58	71.90	47.53
Wyoming.....	57.09	.....	45.85
<i>Total.....</i>	<i>47.12</i>	<i>67.58</i>	<i>50.51</i>

In the case of the anthracite miners, the average earnings made in one-half month pay-roll period in 1919 are given as follows: Inside occupations averaged \$65.17 while those engaged in outside occupations averaged \$55.37 per two weeks pay roll.⁶¹ The figures presented by the operators to the Coal

per full-time week are presented as follows⁶²:

1913.....	100
1914.....	102
1915.....	102
1916.....	106
1917.....	112
1918.....	130
1919.....	148
1920.....	189

⁵⁹ *Women's Wages Today*, Feb., 1920. Consumer's League of New York State and New York City.

⁶⁰ *Labor Review*, Dec., 1919, pp. 207-229.

⁶¹ *Labor Review*, Dec., 1919, pp. 207-229.

⁶² *Labor Review*, February, 1920, p. 117; March, 1921, p. 64.

Further compilations of increases in union rates of pay per hour from 1914 to 1919 in the building trades in about thirty cities in the United States were made by the Bureau of Applied Economics.⁶³ The increases experienced as given by the international unions concerned were as follows:

<i>Occupation</i>	<i>Per Cent of Increase from 1914 to 1919</i>
Bricklayers	30.9
Carpenters	53.9
Cement workers and finishers	36.3
Inside wiremen	51.4
Painters	60.8
Plasterers	32.2
Plumbers	50.0
Sheet metal workers	56.2
Steam fitters	51.6
Structural iron workers	51.7

In the case of the dress and waist industry the increase in wage rates amounted to 52.8 per cent from 1916 to 1919,⁶⁴ while in the case of linotype operators the increase from 1914 to 1919 constituted only 24.2 per cent, and for compositors, both newspaper, book and job work, the increase amounted to approximately 32 and 33 per cent respectively.⁶⁵

The Interchurch World Movement Report on the steel strike concludes that:

The annual earnings of over one-third of all productive iron and steel workers were, and had been for years, below the level set by government experts as the minimum of subsistence standard for families of five.

The annual earnings of 72 per cent of all workers were, and had been for years, below the level set by government experts as the minimum of comfort level for families of five.

This second standard being the lowest which scientists are willing to term an

"American standard of living," it follows that nearly three-quarters of the steel workers could not earn enough for an American standard of living. The bulk of unskilled steel labor earned less than enough for the average family's minimum subsistence; the bulk of semi-skilled labor earned less than enough for the average family's minimum comfort.

In 1918, the unskilled worker's annual earnings were more than \$121 below the minimum of subsistence level and more than \$495 below the "American standard of living" for families.

In 1919, the unskilled worker's annual earnings were more than \$109 below the minimum of subsistence level and more than \$558 below the "American standard of living."⁶⁶

In January, 1920, Professor Ogborn presented to the Bituminous Coal Commission, a minimum budget necessary for a miner's family, at \$2,118.94 a year. About the same time the United States Bureau of Labor Statistics, at the request of the Bituminous Coal Commission, in a study of a number of mining towns in Pennsylvania, West Virginia, Ohio, Indiana, and Illinois found the budget varying from \$2,044.39 to \$2,162.65. According to the same bureau the index of wholesale prices for all commodities in the United States when taken at 100 for January,

⁶³ *Wages in Various Industries*, p. 13, 1919, Bureau of Applied Economics.

⁶⁴ *Ibid.*, p. 30.

⁶⁵ *Ibid.*, p. 47-48.

⁶⁶ *Report of the Steel Strike of 1919*. Commission of Inquiry Interchurch World Movement, pp. 12-13-14.

1913, had risen to 272 in May, 1920, an increase of almost 200 per cent.

On the basis of these budgets and increase in prices, Mr. W. Jett Lauck, a competent authority, declared in May, 1920, before the United States Railway Labor Board that "not a penny less than \$2,500 a year was the minimum necessary for a family of five to maintain itself, even in decent poverty."

The National Industrial Conference Board declared recently that the cost of living of American wage-earners has increased 104.5 per cent between July, 1914 and July, 1920. The United States Bureau of Labor Statistics states that its investigations in a number of industrial centers show that the prices of the essential items making up the family budget have increased from December, 1914 to June, 1920, as follows⁶⁷:

Baltimore.....	114.3
Boston.....	110.7
Buffalo.....	121.5
Chicago.....	114.6
Cleveland.....	116.8
Detroit.....	136.0
Houston.....	112.2
Jacksonville.....	116.5
Los Angeles.....	101.7
Mobile.....	107.0
New York City.....	119.2
Norfolk.....	122.2
Philadelphia.....	113.5
Portland, Maine.....	107.6
Portland, Oregon.....	100.4
San Francisco and Oakland.....	96.0
Savannah.....	109.4
Seattle.....	110.5
Average for all cities.....	112.7

Thus taking the various estimates into consideration, it would seem most conservative to state that during the first six months of 1920, at which time prices reached their peak, it required at least between \$1,800 and \$2,000 a year, or approximately between \$35 and \$40

a week the year round to support a family of five with the necessities of life.

In view of this it may be of value to examine a few more wage statistics collected during the year 1920.

In a recent report issued by the New York City Board of Estimate and Apportionment, the comparative rates of wages paid by New York City are given from January 1, 1916 to January 1, 1920. Of the 57 trades enumerated, only one—the painters—show an increase of 100 per cent on the last date. In 25 more trades the increase amounts to 50 per cent or over, while in 31 of the trades the increase amounts to less than 50 per cent.

The Massachusetts Commission on the necessities of life found that in June, 1920, the cost of living in Massachusetts when based on corresponding prices in 1913, had increased 99.7 per cent. At the same time a comparison of the hourly rates of wages in 213 trades in Boston, at the close of June, 1914, with those at the close of June in 1920, showed that the average hourly rates in these trades had increased only 83.5 per cent during the six-year period.⁶⁸ It must be noted, however, that in many of these trades there was found a reduction in the basic number of hours worked per week, with a consequent reduction in the weekly rates of wages. When these were taken into consideration, the Massachusetts Department of Labor and Industries found that the average weekly wages had actually increased only 72.7 per cent as against 99.7 per cent increase in the cost of living during the same period.

The October, 1920 *Review* published by the United States Bureau of Labor Statistics presents a detailed study of the union scales of hourly wage rates throughout the country. These cover

⁶⁷ *Labor Review*; September, 1920, pp. 75-80.

⁶⁸ *Massachusetts Industrial Review*, Vol. I, No. 2, p. 4, July, 1920.

many industries and their rates of wages paid are given for each year from 1913 to 1920. A comparison of the hourly wage rates paid in May, 1914 and May, 1920 in the nineteen cities for which the rise in the cost of living has been given in the preceding page is herewith presented⁶⁹:

road employes is presented. (1) As of December, 1917 (under private control); (2) January, 1920 (under the United States Railroad Administration); and (3) July, 1920 (under the last decision of the United States Labor Board). The number of employes and the actual wages earned are tabulated on page 188.

<i>Occupation</i>	<i>Per Cent Increase from May, 1914 to May, 1920</i>
Blacksmiths.....	102.2
Boiler makers.....	112.2
Bricklayers.....	69.0
Building laborers.....	136.2
Carpenters.....	94.5
Cement finishers.....	84.8
Compositors, book and job.....	87.6
Compositors, newspapers.....	57.0
Electrotypers, finishers.....	79.3
Electrotypers, molders.....	78.3
Granite cutters.....	92.0
Hod carriers.....	128.7
Inside wiremen.....	98.3
Linotype operators, book and job.....	63.9
Linotype operators, newspaper.....	54.0
Machinists.....	112.4
Molders, iron.....	130.6
Painters.....	106.6
Plasterers.....	70.2
Plasterer's laborers.....	106.2
Plumbers.....	70.5
Sheet-metal workers.....	95.5
Stone cutters.....	84.7
Structural, iron workers.....	79.0
Average of all Trades.....	99.7

In March, 1920 the respective earnings of anthracite miners, including both inside and outside occupations during a one-half month pay-roll, was \$68.56 and \$55.81.⁷⁰

In a recent report published by the United States Labor Board⁷¹ a comparison of the average daily and monthly earnings of all classes of rail-

The average weekly wage of factory workers in New York State reported by the New York State Industrial Commission, amounted to \$24.41 per week in October, 1919, \$27.87 in April, and \$28.73 in September, 1920,—nearly \$10 per week less than was conservatively considered the minimum necessary for the maintenance of an American standard of living.

Taking the most conservative estimate given for 1919 as that of \$1,500, this means \$28.85 per week or practi-

⁶⁹ *Monthly Labor Review*, Oct., 1920, p. 79-92.

⁷⁰ *Labor Review*, Dec., 1919, p. 207-229.

⁷¹ Average daily and monthly Wage Rates of Railroad Employes on Class 1 carriers. *Wage Series Report 1*, August, 1920.

AVERAGE WAGE RATES FOR RAILROAD EMPLOYEES

Occupation	Number of Employees	Average Wage December, 1917	Average Wage January, 1920	Average Wage July, 1920
Supervisory forces	12,634	\$148.57	\$230.21	\$259.03
Maintenance of way and unskilled labor forces . .	585,625	54.92	84.08	103.53
Shop employes	455,776	89.87	128.64	154.78
Telegraphers, telephones and agents	77,646	67.57	115.87	135.66
Engine service employes	136,952	124.52	180.98	218.80
Train service employes . .	189,905	108.66	160.07	199.52
Stationary department employes	8,000	55.59	97.00	122.40
Signal department em- ployes	15,000	84.15	130.27	155.77
Marine department em- ployes	834	127.65	166.01	194.46
Clerical and station forces	354,400	66.04	98.53	121.89
Grand total	1,836,772	\$77.93	\$115.82	\$141.28

cally \$5.00 a day every working day in the year as the minimum wage necessary to maintain John Doe, his wife and three little Does. *The Survey*⁷² gives the following analysis of the meaning of this wage.

Suppose John Doe pays \$3.50 weekly for rent—certainly not a high rate; at least \$13.00 will be required for food—an allowance adequate only with the most careful management on the part of Mrs. Doe. For clothing at least \$6.75 weekly will be needed; light and fuel with only the kitchen stove will cost at least \$1.50 weekly on an average throughout the year; carfares if Doe has to ride to work, will cost at least \$1.20 weekly; miscellaneous articles for the household \$1.15, a total of \$27.10. This leaves a balance of \$1.75 for church, newspapers, ice-cream cones, hair-cuts, etc., for five persons; and the list will probably include insurance as well, for most families like the Does will buy industrial insurance.

If everything goes on smoothly, and if Mrs. Doe is a careful planner, it may be possible for the Does to get on with this budget. The allowance for food and clothing is scant, however; the margin for recreation and sundries is painfully small, and there is no provision for accident or sick-

ness. But suppose a small accident occurs, or a sudden need arises,—the kitchen stove gives out and a new one is necessary; the winter snow comes and several pairs of shoes must be purchased in one week and Doe himself must have an overcoat! The temptation becomes overwhelming to turn to the ever-ready credit companies and mortgage the future for the relief of the present. It is fairly well understood that the credit companies offer goods which, if of good quality, are sold at high prices, and that trading with them is conducive to extravagant purchases; and yet it is hard to see how many families like the Does would manage an extra expenditure of \$25.00 or more were it not for some such expenditure. As a matter of fact, there are comparatively few of the families coming for the first time to the charities for assistance, who are not involved in some way with credit companies or are not struggling to meet weekly payments on debts.

Now suppose a real calamity befalls the Does; for example, little John falls ill, showing signs of tubercular infection. Any margin after such expenses as are noted above will not go far in securing the attendance of the private physician, although the family we are considering is one which should be independent; if they seek free medical service they make their first appeal

⁷² *The Survey*, March 27, 1920, pp. 801-802.

to charity—and then, too, expenses presently increase. Carfares for mother and Johnnie to the dispensary are forty cents a trip, admission to the clinic ten cents more. Suppose they have to go twice weekly, one dollar is gone. Medicines may easily cost another dollar. The doctor prescribes milk and eggs, oranges, green vegetables, warmer coverings, etc. As a result Mr. John must try to cut down somewhere, though cutting seems impossible, and father, mother and the well children all suffer that the invalid may have extra nourishment.

Of course, the natural increase of the family has the same results, for the extra cost of pregnancy and confinement and an additional member of the family, are seldom accompanied by an increase of wages. Perhaps the Does should realize they can't afford to have any more children—but somehow they don't realize it; and then there are many reasons why they are not deterred from adding to their little brood. Indeed, are there not certain prevailing notions abroad that it is a work of good citizenship and service to the state for normal people in good health to rear good-sized families? Moreover the statistician tells us that "The average number of children per family which must be born in order that the stock may maintain itself without increase or decrease, is close to four."

Those who are not working by the day are apt to overlook certain differences between their lot and that of the lower paid workman on piece work or a daily wage. If the salaried man falls ill or meets with an accident his income, as a rule, goes on to a greater or less extent, but with the wage-earner the tendency is otherwise; he is usually paid only when actually at work. In case of accident or occupational disease, workmen's compensation will, it is true, give him two-thirds of his pay; but he has to wait ten days before compensation begins and another week before the first payment comes, and many families haven't even that margin. Moreover, when full wages barely suffice, how long can the family subsist on two-thirds? Sometimes there is a benefit association which assures weekly payments for a time, but often there are no such resources. Relatives are not to be counted on, for their margin, if they have

any, is slender. Landlords are less lenient than formerly, and grocers are wary of extending credit which tends to become a thing of the past. Under stress, therefore, John Doe's family and others like them are forced, though perhaps much against their will, to the first step towards dependency.

It should be remembered that the John Does are an average, respectable family,—a healthy, industrious man without bad habits; a frugal, healthy woman; children in number no more than a couple having ordinarily felt that they should be able to rear; none of them with marked physical weakness. And yet actual experience shows that any one of the accidents to which they are liable, often throws such people, within a week or two, on charity. Moreover, it should be noted that their budget offers no opportunity for savings and that no provision for old age is feasible; such people face at all times the possibility, even the probability, of becoming a burden on the community when their working days are over. Such are the ordinary hazards in the life of a normal family of five living on daily wages of five dollars.

The wage investigations discussed in the preceding pages are significant. It is patent that despite the tremendous increase in wages experienced during the last six years, only few classes of wage-earners have succeeded in keeping pace with the increased cost of living. In the case of many workers, especially the skilled ones, the purchasing power of their increased wages for a full-time week in 1920 was considerably less than it was in the prewar days. And if the great mass of workers, as was seen in the early part of this article, did not receive what is authoritatively considered an American living wage before the present advance in prices had begun, their standards at the present time are necessarily lower.

As this article is in preparation, the newspapers are filled with announcements of wage reductions from all parts of the country, ranging from 20 to over 10 per cent. No definite estimate of

the cost of living at this time (December, 1920) is available.⁷³ While the Bureau of Labor Statistics reports that the index of wholesale prices in the United States, which, when taken at 100 in 1913, reached 272 in May, 1920, its high water mark, declined to 242 in September, 1920, the latest date for which figures are available, it also states that from September, 1919 to September, 1920 only farm products and clothing witnessed decreases of seven and nine per cent respectively. "In all other groups," declares the bureau, "there was an increase between these two dates,—food advancing approximately $5\frac{3}{4}$ per cent, miscellaneous commodities 10 per cent, metals 20 per cent, chemicals and drugs 28 per cent, building materials 40 per cent, house-furnishing-goods 42 per cent, and fuel 57 per cent in average price. All commodities, considered in the aggregate, increased 10 per cent."⁷⁴

⁷³ The most recent figures as to what constitutes a minimum "health and decency budget" for a family of five have just been made public by the Labor Bureau, Inc., New York City. As a result of cost of living surveys conducted in 1921 in New York City and Philadelphia, the above bureau estimates the annual minimum standard necessary for a family of five as \$2,233.99 in New York City, and \$2,338.20 in Philadelphia.

The bureau's estimate is based on the "quantity budget," used by the United States Bureau of Labor Statistics. They estimate that \$698 a year is needed for food, \$398 for clothing, \$443

The significance of the above disclosures needs no further comment. During the last six years the workers in the United States were in as favorable a position as they are not likely, from present indications, to enjoy in many years. The war years witnessed a period of the most intense industrial activity. Great numbers of workers were withdrawn into the military service and immigration was practically suspended. Everywhere there were more jobs than men to fill them. In spite of these favorable conditions, the above statistics seem to indicate that the lot of the wage-earners witnessed little material improvement regarding the relation between the cost of living and wages. The facts available seem to bear out the contention that wages are last to follow the rise in prices and are first to come down when the slump begins.

for rent, \$83 for light and heat, \$59 for household equipment and \$650 for miscellaneous expenses.

"The family is allowed no expenditures for books and magazines," says the bureau's statement, "only one daily paper is included. The doctor's bill cannot exceed \$80 a year for the whole family, and the boy of 12 can get but eight hair-cuts a year. The husband is allowed one-half and the wife one-third of an overcoat each year. The only amusements permitted are an occasional cheap movie show. No allowance is made for a trip or vacation outside the city."

⁷⁴ *Labor Review*, Nov., 1920, p. 49.

Book Department

LOCKEY, JOSEPH BYRNE. *Pan-Americanism—Its Beginnings*. Pp. 503. Price, \$4.00. New York: The Macmillan Company, 1921.

In preparing this volume, Professor Lockey has done a real service to the students of American affairs. He has set forth in greater detail than has been done heretofore, the establishment of the continental policy of the United States. This volume brings the analysis of American foreign policy down to the year 1830, thus covering an important epoch of the formulation of the Monroe Doctrine. The author has done his work thoroughly, with a wealth of documentation that will make this volume indispensable to every student of foreign relations.

Professor Lockey's method of treatment is especially illuminating in dealing with the period of Hispanic-American independence. Many of the circumstances attending this movement, which have heretofore seemed vague and uncertain, are cleared up by the author who, in doing so, shows a grasp of principle and a mastery of detail which set a standard in historical writing.

L. S. ROWE.

Pan American Union.

CHAFEE, ZECHARIAH, JR. *Freedom of Speech*. Pp vii, 431. New York: Harcourt, Brace and Co. Price, \$3.50 net, by mail \$3.64. 1920.

In an authoritative manner well supported by citations and footnotes, this book discusses such topics as: The Espionage Acts of 1917 and 1918; the machinery of the Espionage Acts; the court decisions thereunder: the State Espionage Acts; *The United States v. Jacob Abrams* as a typical contemporary state trial; the normal law against violence and revolution; peace time sedition laws; the deportations; John Wilkes and his successors; and freedom and initiative in the schools. In the appendix is a good bibliography on freedom of speech, an index of reported cases, the text and construction of the Espionage Act of 1918, and

the state, war and peace statutes affecting freedom of speech.

The invigorating fact about this volume is that a professor in a leading American University should take the time necessary to write such a book. Freedom of discussion is not solely freedom from negative prohibitions. The test of freedom of discussion is discussion. Academic freedom particularly must have as its proof, not academic silence but a free discussion of timely issues by those in academic circles. The greatest single tribute that can be paid to Harvard, greater than that of its high standards of scholarship and of research, is that the Harvard environment itself is such that a professor can feel at home in making researches into such matters as represented by this book. President Lowell stands out as one of the greatest of our university presidents just because he has throughout his administration, an administration vexed with years of domestic and international turmoil, preserved not only the technicalities of academic freedom but has kept for his institution, as so many universities the world over have not, an atmosphere wherein his faculty may feel at home in discussing important contemporary problems freed from the untoward influence of over-wrought individuals, whether they be alumni or others.

CLYDE L. KING.

University of Pennsylvania.

BEMAN, LAMAR T. *The Closed Shop*. Pp. xlvii, 197. Price, \$1.80. New York: The H. W. WILSON COMPANY. 1921.

This volume of the "Handbook Series" of the above company is a compilation of material on the "open" and "closed shop" controversy. It was prepared for debaters and contains a bibliography of books, pamphlets, briefs, debates and periodical references. The material, which consists largely of pamphlet and periodical excerpts, is arranged under an affirmative and negative discussion.

A. H. WILLIAMS.

University of Pennsylvania.

- SHEFFERMAN, NATHAN W. *Employment Methods*. Pp. xx, 573. Price, \$5.00.
- KELLY, ROY W. *Training Industrial Workers*. Pp. xxi, 457. Price, \$5.00.
- BLOOMFIELD, DAVID. *Labor Maintenance*. Pp. xviii, 530. Price, \$5.00. New York: The Ronald Press Company, 1921.

To quote the publisher, these books are planned to "give a comprehensive unified presentation of the three aspects of labor management: securing workers, training them, and holding them by maintaining satisfactory working conditions." Such a division of the subject is functional rather than administrative and, as worked out by the authors, involves some duplication.

The first volume treats of that portion of the field of personnel administration usually included under the employment function. It is divided into five parts, the first three of which cover the place and scope of the employment department, sources of supply, selection and placement methods, and transfers and promotions. Part Four deals with the same phases for offices, stores and banks. Part Five is a duplication of the field covered by Mr. Bloomfield's book.

Mr. Kelly's work covers the subject of industrial training in its broadest aspects. An introductory discussion of the need for training and the inadequacy of present-day methods is followed by an historical treat-

ment of the development of these methods. The technical and vocational training programs of secondary public schools are next discussed and evaluated. Training within the factory is covered by chapters dealing with modern apprenticeship plans, vestibule schools, and courses for minor executives and foremen. Finally, the relationship of training to systematic plans for transfers and promotions and the educational value of shop committees and collective bargaining is developed. A discussion of the possibilities of and responsibility for adequate industrial education concludes the work.

Labor Maintenance is a survey of those phases of personnel administration included under the broad term, "service works." The need and proper basis for the development of such work, as well as the internal organization and relative place of the service department, is presented. Health and safety work, recreational activities, plant publications, cafeteria management, industrial housing, training plans, mutual benefit and group insurance plans, and profit sharing form the bulk of the subject matter of the book.

The material in *Training Industrial Workers* is not well arranged and all three books contain too many unenlightening details concerning the specific plans of various companies.

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JAMES H. S. BOSSARD



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Editorial Foreword

By JAMES H. S. BOSSARD, Ph.D.

Assistant Professor in Sociology, University of Pennsylvania

THE child has been called the last serf of civilization. Instead of the earliest objective of the efforts for human betterment, as one might expect because of the fundamental character of the parental instinct—the root of all tenderness—he has been the most recent. For centuries, instinct and reason failed to develop an adequate regard for childhood. From St. Augustine to Jonathan Edwards, the doctrine of child depravity was held and practised, leading to insidious cruelty, or abnormal repression, or indifference at best—this, despite the lofty conceptions of childhood proclaimed by the Great Galilean.¹

EVOLUTION OF THE SOCIAL BETTERMENT MOVEMENT

Each succeeding stage in the evolution of the modern movement for social betterment has carried the emphasis nearer to the inception of life. This may be seen best in a review of its development in England, where it first became an organized movement, definite and self-conscious. Springing out of a new recognition of the eternal worth of individuality, which made its appearance almost co-incident with modern industry, naturally such a movement concerned itself with the immediate task in hand, which it found in the conditions obtaining in the newly created industrial centers. Thus it began largely as a sanitary effort to clear away the filth in city streets, to look after their lighting, cleaning and polic-

ing, and to create proper drainage systems.²

The next step followed speedily as social intelligence appreciated the human problem beyond the processes of sanitation. The era of factory legislation followed. Hours of labor were regulated, especially for women and children; certain dangerous and unhealthy occupations were forbidden; and many similar matters were brought under state inspection.

Valuable as such gains were, they were negative and perhaps, it began to be suspected, too late. A further advance was seen to be necessary. The requirements of the experiment in modern democracy came, too, to emphasize the necessity of an earlier and more positive program. The training and education of future citizens began to be recognized as imperative. The last third of the nineteenth century saw, throughout western civilization, the acceptance of the theory of public education for children. The twentieth century is witnessing the actual application of this theory and the working out of its details and implications.

No sooner were children gathered together in large numbers, at public command and under public auspices, than a host of problems, ever increasing in number and recognized importance, forced themselves upon the social attention, until gradually, out of this consideration of countless children and their needs, there emerged childhood as the chief concern and the main empha-

¹Arnold and Beatrice Gesell, *The Normal Child and Primary Education*, Ginn and Company, New York, 1912, p. 1.

²Havelock Ellis, *The Task of Social Hygiene*, Houghton Mifflin Company, New York, 1913, p. 4.

sis in the present day social welfare movement. In fact, this emphasis has taken many social students and workers to a point where adults are considered of significance largely as a means to an end. And that end is better, healthier, happier children. The twentieth century is the century of the child.

FACTORS IN THE EMANCIPATION OF THE CHILD

Among the factors that have combined to elevate the child to the pedestal of its present importance, two may be considered to be of primary importance. They are the rise of modern humanitarianism and the development of modern science.

1. The Modern Humanitarian Movement. It is impossible, of course, to fix upon any year, epoch or century for the birth of humanitarianism. It is as old as man's inhumanity. There seems to be, however, considerable agreement that humanitarianism has extended greatly in its range during the last century, an extension paralleled, suggestively enough, by a marked increase in human interdependence in the course of social evolution. Witness the decrease in severity in the treatment of criminals, the abolition of human slavery, increased interest in the welfare of the poor, the improved status of women, protection of animals from cruelty—a somewhat arbitrary miscellany of illustrations to be sure. The interesting fact in this connection is not that the modern humanitarian movement should have reacted favorably upon the conditions of childhood, but that such reactions were so slow in making themselves manifest. Societies for the prevention of cruelty to children developed subsequent to, and in many cases quite incidental to, societies for the prevention of cruelty to animals!

2. The Development of Modern Science. More vital than modern

humanitarianism to a true appreciation of the importance of the child has been the development of modern science. The history of science is the story of its progressive application to an ever wider range of phenomena. In time, following its application to the inorganic world, it entered the field of organic activities, not without opposition however, and the biological sciences developed—Zoölogy, Botany, Physiology, Anatomy, Biology and Psychology. The development of the science of Psychology, particularly in its genetic aspects, meant much for a better appreciation and understanding of the importance of childhood, due very largely to the leadership and the influence of G. Stanley Hall, President and Professor in Psychology at Clark University. Still later, as the nineteenth century was drawing to a close, came the application of science to the field of human relationships, and the social sciences appeared to claim membership in the scientific guild.

Social science has brought about a new recognition of the child chiefly as a result of the new ideal in social work which it evolved. Professor Ross, of the University of Wisconsin, writing more than a decade ago, aptly summarized this ideal as well as the background of its development in the following words:

Within ten years a wonderful hopefulness has entered the hearts of social workers. They have not been giving all their time to helping the human wrecks that file in endless procession before them. They have done a little exploring. They have followed up the feeders of this river of human misery, the origin of which has been as much shrouded in darkness as the sources of the Nile. They have located some of the principal springs of evil and, to their wonder, they are not defects of human nature at all but "adverse conditions"—that can be removed. Hence they are beginning to tell us that poverty is as curable as tuberculosis.

They insist that most of the sources of crime can be stopped up. There is growing enthusiasm for constructive policies. One of the great organizations possessed by the new idea has taken as its motto, "Better a fence at the top of the precipice than an ambulance at the bottom."³

The development of the ideal of prevention inevitably caused social workers to turn to the child. The "fence at the top of the precipice" must needs be built as early in life as possible. Mangold in his book on child welfare, published seven years ago, emphasizes the significance of this ideal for social work in these words:

In modern social work the emphasis has been shifted from the parent to the child. The fact that this is so is due largely to the belief in the principle, "An ounce of prevention is worth a pound of cure." Not relief but prevention is the slogan of modern social work; not palliatives but fundamental social reforms are demanded today. It is well then to begin with the child, for he presages the coming man. He is the plastic material that can be molded ill or well; he is gigantic in possibilities, but dwarfed if without opportunity. We are beginning to realize that the more time and energy that are spent on the child, the more lasting and profitable is the investment. . . . Childhood is the time of preparation; afterwards little can be accomplished. Let society concentrate more of its energies on the child, instead of scattering them as it does today, and then with an equal expenditure of effort it will accomplish more good than can be realized in any other way.⁴

EMERGENCE OF THE PRESENT CHILD WELFARE MOVEMENT

Not only has the emphasis in the social welfare movement been shifting from the parent to the child, but an equally significant change in emphasis

has been taking place in the child caring movement itself. The child *saving* movement of the nineteenth century has been transformed into the child *welfare* movement of the twentieth century.

In a report of the committee of the Division on Children of the National Conference of Social Work, made at the annual meeting at Kansas City in 1918, Mr. Henry Thurston, of the staff of the New York School for Social Work, summarized the important things done for children during the nineteenth century. The report includes: (1) The establishment and maintenance of separate institutions for the care of the separate classes of handicapped children found in mixed almshouses and jails, in inadequate homes and in streets or alleys—examples being found in the establishment of institutions for orphans, for the blind, the deaf, the crippled, the low grade feeble-minded and the epileptic, and in reformatories and industrial schools for delinquents; (2) the substitution, to a slight extent at least, of *placing-out* and *boarding-out* of various groups of handicapped children for the old indenture and apprenticeship systems; (3) the beginnings of separate parts of our present juvenile court system, in the form of probation and the separation of children from adults in courts and jails; (4) the establishment of societies for the prevention of cruelty to children; (5) the beginnings of compulsory school attendance; and (6) the beginnings of child labor legislation.

"In other words," concludes the committee's report, "the public or social work for children for a large part of the nineteenth century was chiefly confined to the separation from the community of class after class of the children who were specially afflicted by some outstanding handicap like

³ Edward Alsworth Ross, *Latter Day Saints and Sinners*, B. W. Heusch, New York, 1910, p. 46.

⁴ George B. Mangold, *Problems of Child Welfare*, The Macmillan Company, New York, 1914, p. 1.

homelessness, neglect, blindness, deafness, crippled bodies, imbecile minds, delinquency, etc."⁵

Workers engaged with these groups of handicapped children came in time, as did their fellow workers with adults, to an appreciation of the economy of preventive work. This led somewhat naturally to a consideration of the essentials of welfare upon which children of normal opportunity thrive, and this, in turn, to a consideration of such essentials for all children. "This progress has been symbolized by our changing emphasis in the use of terms. *Child Saving* had to yield a large place to *prevention*, and now both *child saving* and *prevention* are giving way to a larger and newer conception of *child welfare*."⁶

Child welfare is coming to comprehend, then, the welfare of all children, whether specially handicapped or not. It means that "there is a child welfare minimum in our democracy that will make that democracy worth saving by insisting that every child must have his full individualized chance."⁷ It is this interpretation of the term "child welfare" which was uppermost in the minds of the men and women who participated in the regional conferences held in 1919 under the auspices of the Federal Children's Bureau, and drew up the first national statement of those "irreducible minimum standards for the health, education and work of the American child," which Miss Lathrop, whose name during the years of her tenure as chief of the Federal Children's Bureau came to be synonymous with child welfare in the United States, sets

forth so admirably in the opening contribution to this volume.

It is this meaning of the term which is being written into the children's codes now in process of crystallization in various of our states, for, as Mr. Clopper reminds us: "The real children's code is democratic and recognizes no class distinction."⁸

The first part of this volume is devoted to problems of welfare involving all children—life, health, nutrition, dental hygiene and mental hygiene. Particular attention is called to the articles dealing with the various aspects of the mental hygiene movement in its relation to child welfare, representing, as it does, an emphasis upon one very important aspect of the child welfare movement, largely neglected in former years, but now in process of receiving merited recognition. In connection with the various aspects of child welfare considered, it is to be noted that there is developing a new appreciation of the possibilities of the public school as a social agency. Accordingly, three articles dealing with suggestive aspects of this project have been included.

Part II deals with the more time-worn problems of socially handicapped children. Although the problems presented may be somewhat time-worn, their treatment most assuredly is not. The reader will find much that is new, suggestive and valuable in their discussion by the various experts who have given generously of their time and efforts to make these contributions.

Part III includes two articles devoted to the legal and administrative aspects of the child welfare movement. The first of these articles deals with the development of the children's code, setting forth the progress that has been made thus far in the re-consideration,

⁵ Henry W. Thurston, "Proceedings of the National Conference of Social Work," formerly National Conference of Charities and Correction, 45th Annual Meetings, Kansas City, 1918, pp. 48, 49.

⁶ *Ibid.*, p. 53.

⁷ *Ibid.*, p. 52.

⁸ Cf. "The Development of the Children's Code" in this volume.

revision and coördination of legislation relating to the protection, care and welfare of children, and emphasizing the necessity of the preparation of a state-wide and coördinated program in the interests of our future citizens, such as the term "code" implies. The final article in the volume, by the able secretary of the Minnesota State Child Welfare Commission, presents the status of the child welfare movement in one state which has made noteworthy progress in the creation and application of such a state-wide and coördinated program.

The editor in charge is fully aware of certain gross errors, particularly of omission, in the preparation of the outline of this volume. A discussion of the transition in the modern family and the effects of modern industry upon the home, together with a consideration of their reaction upon the general problem of child welfare, would have been of

value. The omission of the entire subject of recreation as a separate division for discussion is well-nigh unpardonable. Several articles dealing with the problems of the rural child would have been very pertinent. Consideration of the philosophy of the state and its interrelations with child welfare work would have been exceedingly interesting. All of these topics were considered, but various circumstances, spatial and otherwise, combined to make their inclusion inexpedient or impossible. Unfortunately, those articles dealing with the problems of juvenile delinquency, which were scheduled to appear in this volume, were not received in time for publication. Despite these and other shortcomings of editorial architecture, it is hoped that the final result has been a volume not only of interest to the general reader but also, perhaps, of some value to the busy, skilled workers in actual grip with the problems involving the welfare of the child.

Standards of Child Welfare

By JULIA C. LATHROP

Formerly Chief, Children's Bureau, United States Department of Labor

AS a singular by-product of the Great War it is possible to set forth with some precision the standards of child welfare generally accepted in the United States at the end of the second decade of the twentieth century. This does not mean standards uniformly in operation in the forty-eight states. But it is fair to say that they sum up the judgment of acknowledged students and practical authorities throughout the United States, and that examples exist of states or communities or voluntary organizations which have attained or exceeded any standards set forth in the statement which is the basis of this paper. I refer to the Minimum Standards for Child Welfare adopted by the Washington and Regional Conferences on Child Welfare in 1919.

In the spring of 1919 a series of conferences on standards of child welfare concluded the popular program of "Children's Year"—that second year after our entrance into the War when many millions of civilians added to all possible service for our soldiers, a further work of patriotism in carrying through a nationally organized plan of demonstrating and publishing the needs and rights of children. "Children's Year" was undertaken by the Children's Bureau of the Department of Labor by means of an allotment of \$150,000 from the President's War Fund, an allotment which was accompanied by a letter from President Wilson in which he said: "Next to the duty of doing everything possible for the soldiers at the front, there could be, it seems to me, no more patriotic duty

than that of protecting the children, who constitute one-third of our population. . . . I trust . . . that the work may so successfully develop as to set up certain irreducible minimum standards for the health, education, and work of the American child." The Woman's Committee of the Council of National Defense joined at once with the bureau and set in motion its vast network of agencies throughout Continental United States and the Island Possessions.

CHILDREN'S YEAR ACTIVITIES AND RESULTS

A series of observances was continued throughout the year beginning April 6, 1918, and the child welfare conferences of May and June, 1919, followed as a conclusion.

The first activity was a weighing and measuring test of children under six years of age. Upon authorized requests of local committees, over 7,000,000 record cards were provided by the bureau, most of which were used. The card showed a scale of height and weight in relation to age and was in two parts, one to be kept by the parents so that they might in each case preserve a record of the child's relation to the normal standard. In certain communities the testing was done with scientific precision and the records gave new and valuable data regarding weight and height of children according to nationality of parents, geographical location and other conditions. From the forms returned to the Children's Bureau, records of 167,024 white children were selected with the

advice of consulting authorities on pediatrics, anthropology and statistics, and new tables of stature and weight of boys and girls by month of age up to six years have been prepared and published in a report including other significant data derived from the record cards.

Many children, also, received complete physical examinations by competent physicians, and unsuspected defects were discovered and corrected. But whether the child was weighed on the farm scales by his own parents who themselves sent to the bureau for a record form, or was carefully examined by a distinguished pediatricist who gave his services to the cause, each child's record was an unforgettable object lesson to all the surrounding adults, showing a definite relation between age and normal growth, and warning that marked divergence calls for attention.

Further results of this activity have been the addition of child hygiene divisions to state health departments in a largely increased number of states, a marked nation-wide increase in the development of local child-health centers, and the growing unsatisfied demand for trained public health nurses for rural as well as urban areas. Although not an outgrowth of Children's Year, the effort to develop and standardize the training of public health nurses is of great importance to the effectiveness of child hygiene standards, and the study of nurses' training schools now under way by the Rockefeller Foundation is pertinent to this discussion. It will undoubtedly aid in standardizing the training of public health nurses and will tend to improve the efficiency of all child-health agencies.

I have dwelt upon the Children's Year activity for infants and young children because its standardizing effect was obvious and its reach far wider than that of the other activities of the

year. It is to be regretted that funds were not available to develop demonstrations for all the groups of children with the same individual attention given those under six.

A recreation program was also carried out, with special reference to rural children. In this the Playground and Recreation Association of America and the club and demonstration directors of the Department of Agriculture gave much help and an admirable pageant was written for the program by the Drama League of America. The influence of the recreation drive was widespread. It emphasized the importance of vigorous, active sports, team play whether in dramatic production or on the athletic field, well-equipped playgrounds in rural centers and in connection with rural schools, and the aid to health afforded by athletic play properly supervised.

The year concluded with a Back-To-School drive which was especially needed because the high pay in war industries had drawn many children from school. The value of schooling, at least to the age of sixteen, as a fairly certain guarantee of better earning power throughout life, was shown in popular addresses, in a series of printed statements widely distributed and by the work of local committees in coöperation with school authorities. In localities where visits were made to absentees under sixteen with the purpose of discovering if they could return to school, a largely increased attendance, especially in the higher grammar and high school grades, was reported.

CONFERENCES ON CHILD WELFARE STANDARDS

Fragmentary as the year's activities, of necessity, were, they reached out over the country to a degree entirely new and indeed unexpected, and greatly strengthened a nation-wide un-

derstanding of the importance of child welfare as a national issue. It was, therefore, natural to conclude the year by a summing up of national opinion on standards of child welfare, in accordance with President Wilson's letter.

Because of the crowded living conditions due to the War the calling of large assemblies in Washington was not permitted. Hence, a small meeting of specialists in Washington was followed by a series of regional conferences. This, in fact, was an advantage, since the regional conferences extending from Boston to San Francisco resulted in wide discussion and valuable criticism of the standards tentatively submitted at the Capital. A special committee of five met later in Washington to consider all suggestions and the standards were published as approved by this committee. All the meetings of the successive conferences were given great inspiration by the presence and counsel of authorities on child welfare from the countries of our principal allies who came as guests of the government. Under unspeakable war hardships, these men and women had devoted themselves to the protection of the young of their nations and had demonstrated the effectiveness of intelligent care in saving life and protecting children as far as possible from the effects of war. Their influence could not fail to emphasize the public responsibility of any modern nation for child welfare standards.¹

In the final report of the conferences, the standards are set forth under three heads:

Public protection of the health of mothers and children;

Children entering employment;
Children in need of special care.

PROTECTION OF THE HEALTH OF MOTHERS AND CHILDREN

The conditions stated as essential to the protection of maternity, infancy and childhood are as follows:

First, as to maternity:

Maternity or prenatal centers sufficient to provide for all cases not receiving prenatal supervision from private physicians; the work of such centers to include adequate medical examination, instruction in the hygiene of maternity and infancy, adequate instruction and care in the home afforded by visiting public-health nurses and adequate medical and nursing care at confinement, whether in the home or in the hospital, with sufficient household service for four or six weeks to allow the mother to recuperate.

Clinics for needed treatment during pregnancy.

Hospitals sufficient to provide for all complicated cases and for all women wishing hospital care; free or part-payment obstetrical care in every necessitous case.

Licensing and supervision of all midwives.

Adequate income to allow the mother to remain in the home through the nursing period.

Education of the general public as to the problems presented by maternal and infant mortality and their solution.

Second, as to infants and pre-school age children:

Complete birth registration.

Prevention of infantile blindness.

Children's health centers to give health instruction, under medical supervision, for the care of all infants and children not under care of a private physician, including instruction in breast feeding and in all matters of

¹ Printed copies of the Minimum Standards for Child Welfare and a limited number of copies of the proceedings of the 1919 conferences are available for free distribution upon application to the Children's Bureau, U. S. Department of Labor, Washington.

home care and hygiene of infancy and childhood, and to provide or to coöperate with sufficient numbers of public-health nurses to make home visits to all infants and children of pre-school age needing care.

Dental and other clinics.

Children's hospitals or hospital beds and provision for medical and nursing care at home sufficient to care for all sick infants and young children.

State licensing and supervision of all child-caring institutions in which infants or young children are cared for.

General educational work in prevention of communicable disease and in hygiene and feeding of infants and young children.

Third, as to school children:

Proper location, construction, hygiene, ventilation and sanitation of school house; no over-crowding.

Adequate playground and recreational facilities, physical training and supervised recreation.

Adequate medical and nursing school service; full-time school nurse to give instruction in personal hygiene and diet, to make home visits, advising and instructing mothers in principles of hygiene, and to take children to clinics with permission of parents.

Complete standardized basic physical examination by physicians once a year, with determination of weight and height at beginning and end of each school year; monthly weighing wherever possible.

Continuous health record for each child to be kept on file with other records of pupil; this should be a continuation of the pre-school health record which should accompany the child to school.

Supervision to control communicable disease, available clinics for dentistry, nose, throat, eye, ear, skin and orthopedic work, and free vaccination against smallpox.

Open-air classes with rest periods and supplementary feedings for pre-tuberculous and certain tuberculous children and children with grave malnutrition; nutrition classes; examinations by specialist of retarded or atypical children.

Education of the school child in health habits, including hygiene and care of young children.

General educational work in health and hygiene, including education of parent and teacher to secure full coöperation in health program.

Fourth, as to adolescent children:

Complete standardized basic physical examination by physician, including weight and height, at least once a year, and recommendations for treatment if needed.

Clinics for treatment of defect and disease.

Supervision and instruction to insure ample diet, with special attention to growth-producing foods; sufficient sleep, rest, and fresh air; adequate and suitable clothing; proper exercise for physical development; knowledge of sex hygiene and reproduction.

Full-time, compulsory education to at least sixteen years of age, adapted to meet the needs and interest of the adolescent mind, with vocational guidance and training.

Clean, ample recreational opportunities to meet social needs, with supervision of commercial amusements.

Legal protection from exploitation, vice, drug habits, etc.

Thus far, the standards are those of medical and health authorities who approach the problem of safeguarding childhood on the health side, and the full statement strongly emphasizes the necessity for the education of the general public, of parent and teacher, and of the adolescent child in those matters which he is by that time considering for himself. A decent home and decent

income are plainly assumed as basic to effective health protection.

STANDARDS FOR CHILDREN ENTERING EMPLOYMENT

The Minimum Standards for Children Entering Employment require an age minimum of 16 for employment in any occupation, save that children between 14 and 16 may be employed in agriculture and domestic service during vacation periods.

The educational minimum would require all children between 7 and 16 years of age to attend school for at least nine months each year, continuation schools to be provided for all between 16 and 18 who are regularly and legally employed and who have not completed the high-school grade, and vacation schools to be provided for all.

The physical minimum would require: That a child shall not go to work until a physical examination by an authorized medical officer has shown him to be of normal development for his age and physically fit for the work he is to perform.

It is further recommended:

That all working children under the age of 18 years have an annual physical examination.

That hours of employment be not more than eight hours a day or forty-four hours a week for all minors.

That the hours spent at continuation schools by children under 18 years of age be counted as part of the working day.

That night work for minors be prohibited between 6 p. m. and 7 a. m.

That employment certificates be issued to all entering employment who are under 18 years of age, the issuance to be under state supervision and only after the issuing officer has received and filed satisfactory evidence of age, physical fitness, completion of eighth

grade of school and promise of employment.

The laws of no state have yet embraced all the standards here set forth; the extent to which they are approximated is indicated by the following statement of general requirements in force January 1, 1921 (some of which are subject to qualification and exemption):

Seven states have an age minimum of 15 years or over; 29 provide an eight-hour day for children under 16, and 41 prohibit their work at night (the eight-hour day and the night-work provisions are also found in the Federal child labor tax law); all states have compulsory school attendance laws, effective to varying ages; 22 states have continuation school laws containing compulsory provisions; 19 require every child applying for a regular employment certificate to be examined by a physician.

As a result of action taken during the child welfare conferences, a committee of eleven physicians was appointed by the Children's Bureau to formulate definite standards of normal development and sound health, for the use of physicians in examining children applying for work permits. The preliminary report of this committee has been published by the bureau; it contains general recommendations, detailed minimum standards of physical fitness, and a discussion of methods to be employed in making physical examinations.

STANDARDS RELATING TO CHILDREN IN NEED OF SPECIAL CARE

These standards begin by affirming, in all essentials, the conclusions of the White House Conference of 1909 on the care of dependent children.² Then fol-

² The first instance of a Presidential conference on child welfare was that called by President Roosevelt in 1909 to consider a single phase of

lows a statement from which the following paragraphs are quoted:

The fundamental rights of childhood are normal home life, opportunities for education, recreation, vocational preparation for life, and moral, religious, and physical development in harmony with American ideals and the educational and spiritual agencies by which these rights of the child are normally safeguarded.

Upon the state devolves the ultimate responsibility for children who are in need of special care by reason of unfortunate home conditions, physical or mental handicap, or delinquency. Particular legislation is required to insure for such children the nearest possible approach to normal development.

Home life which is, in the words of the conclusions of the White House Conference, "the highest and finest product of civilization," cannot be provided except upon the basis of an adequate income for each family.

The policy of assistance to mothers who are competent to care for their own children is now well established. It is generally recognized that the amount provided should be sufficient to enable the mother to maintain her children suitably in her own home, without resorting to such outside employment as will necessitate leaving her children without proper care and oversight; but in many states the allowances are still entirely inadequate to secure this result under present living costs. The amount required can be determined only by careful and competent case study, which must be renewed from time to time to meet changing conditions.

The statement emphasizes the importance of a responsible state supervising body to inspect and license every institution, agency or association which receives or cares for mothers with children, or children who are delinquent, dependent or without suitable parental

care—with authority to revoke licenses for cause and to prescribe forms of registration and report. The state agency should further maintain such visiting of children in institutions or placed in family homes as will insure their proper care, training and protection.

No child should be permanently removed from his own home unless it is impossible to make the home safe for the child or his continuance in the home safe for the community.

The aim of all provision for children who must be removed from their own homes should be to secure for each child, home life as nearly normal as possible. "To a much larger degree than at present, family homes may be used to advantage in the care of such children."

The principles which should govern all placing of children in foster homes and the supervision of children placed in institutions are given in considerable detail.

Modern principles for the care of illegitimate children are stated with the special attention which is needed if the handicaps of children born out of wedlock are in any degree to be counterbalanced. A series of special conferences on the legal protection of illegitimate children, held in 1920, resulted in the adoption of certain conclusions, most of which have since been embodied in the draft of a model law prepared by a committee of the National Conference of Commissioners on Uniform State Laws.

The care of physically and mentally defective children is discussed with two guiding principles: First, unceasing study of the children themselves, their environment and background; second, the greatest practicable degree of individual development and freedom compatible with safety for the child and for the community.

the subject—the care of dependent children. This is known as the White House Conference, and the permanent value of its formulations is unquestioned.

Perhaps at no point do the standards indicate a more truly scientific advance in method than in considering feeble-minded children. Although recognizing the necessity of adequate institutional provision for the feeble-minded, differentiation of treatment based on intensive study of individuals and types is also advised.

Although the principle of the juvenile court is accepted throughout the country, the standards require conditions some of which may be found in most courts, though, unfortunately, few courts will be found in which all are observed: *i.e.*, separate hearings of children's cases, special detention apart from adults, adequate investigation for every case, provision for physical and mental examinations, trained probation officers, women officers for girls' cases, the recording and filing of social as well as legal information, procedure under chancery jurisdiction and juvenile records not to stand as criminal records. Wherever possible, administrative duties, such as child-placing and relief, should not be required of juvenile courts. Adult sex offenders against children should be dealt with in juvenile courts to the end that victims may be spared "publicity and further corruption." Following a juvenile court conference held in June, 1921, under the auspices of the Children's Bureau and the National Probation Association, a committee has been appointed by the bureau to consider standards of juvenile court organization and procedure.

The application of all the above standards to rural children in need of special care is pointed out, as well as the need for increased social service in rural areas, and the statement closes with the following appeal for scientific method:

There is urgent need of a more adequate body of scientific literature dealing with

principles and practice in the children's field of social work, and the meeting of this need is a responsibility resting on those so engaged. Careful interpretation and analysis of methods and results of care and the publishing of these findings must precede the correcting of many present evils in practice. Boards of directors, trustees, and managers should particularly consider participation in the preparation of such a body of facts and experience as being a vital part of the work of their staff members.

THE SCIENTIFIC APPROACH TO CHILD WELFARE

At the end of the whole statement of standards are placed three paragraphs which indicate the spirit in which they were framed and the recognition of constant study and research as the only method of making experience fruitful:

Economic and social standards.

At the general session of the Washington conference the economic and social aspects of child welfare standards were discussed. While detailed standards were not formulated in this wide field, it was recognized that an adequate wage for the father, wholesome and pleasant housing and living conditions, and the abolition of racial discrimination are fundamental to the realization of any child welfare program.

Recreation.

The desire for recreation and amusement is a normal expression of every child, which must be considered in any program for the physical and moral education of children. Parents and others charged with their care should be educated as to the importance of recreation. Public provision should be made for wholesome play and recreation, both indoor and outdoor, under trained leadership, and especially adapted to the different age periods of the child.

Commercialized amusements should be safeguarded by official supervisors having a scientific knowledge of recreation.

Child welfare legislation.

The child welfare legislation of every state requires careful reconsideration as a

whole at reasonable intervals, in order that necessary revision and coördination may be made and that new provisions may be incorporated in harmony with the best experience of the day. In states where children's laws have not had careful revision as a whole within recent years, a child welfare committee or commission should be created for this purpose. Laws enacted by the several states should be in line with national ideals and uniform so far as desirable in view of diverse conditions in the several states.

Child welfare legislation should be framed by those who are thoroughly familiar with the conditions and needs of children and with administrative difficulties. It should be drafted by a competent lawyer in such form as to accomplish the end desired by child welfare experts and at the same time be consistent with existing laws.

It must be recognized that in our day no complete child welfare standards will be written; they must be subject to review and alteration according to the discoveries of physical and social science. These standards are incomplete, uneven and in some respects superficial, bearing witness to our fragmentary knowledge of child welfare and our imperfect view of the essentials of sound society. But they are invaluable because they are the first nationwide attempt to deal with the welfare of all children as a single problem in the social field, requiring in its working-out, the coördinated efforts of physicians, teachers, students of many sciences and practical social workers.

The committees who prepared the standards have reiterated under the different headings the necessity for a scientific approach to every problem of child welfare, whether of universal or special application. Indeed, it is impossible to avoid the conclusion that adequate support of research in the various interwoven problems of child welfare would prove of immediate

practical value to general social progress in our country. Without constant observation of actual experience reported intelligibly to the public we must continue to waste life, vigor and money to an unnecessary degree. Lavish gifts and bequests to answer imaginary needs will continue, and money will be withheld where it should be expended.

However, encouraging proofs are to be seen of the growth of the method of scientific research in the child welfare field. None is more significant than the comparatively recent interest in the study of child welfare legislation in the states. Twenty-four states and the District of Columbia, by special commissions, have reviewed or are now reviewing their laws, comparing them with those of other states, studying the existing needs of children in their own states, and formulating coherent programs to meet their legislative problems of child welfare; the advance in wise legislation is already marked. Plainly the task begun by such commissions cannot end. Laws once secured must be watched in operation and amended, repealed, superseded, as experience indicates. Another encouraging sign is the present tendency to discuss special problems through nationally representative scientific committees and to publish results or conclusions which may serve as a basis for needed legislation, or for voluntary activity, or as a contribution toward the solution of a baffling problem.

This scientific method is slow but it is also revolutionary. It ends the easy indifference of the fatalist; it destroys the respectability of giving money without knowing life. It invites the indispensable service of able and highly-trained students to examine and standardize progressively the child welfare aspects of applied social science.

Fundamental Factors in Infant Mortality

By RICHARD ARTHUR BOLT, M.D., GR.P.H.

General Director of the American Child Hygiene Association, Baltimore, Maryland

INFANT mortality has come to mean infinitely more than the deaths of so many babies under one year of age. It is true that the infant mortality rate is most conveniently expressed as the number of deaths under one year of age per one thousand live births during the year under consideration, but its factors are diverse and permeate the basic strata of our social structure. Infant mortality must now be looked upon as a socio-economic complex whose finer ramifications can be traced to hereditary, congenital, neonatal and environmental roots. It reveals not only the sanitary status of a community, but its social, economic and moral aspects as well. It has, therefore, to be regarded as the most sensitive index we have of social and sanitary progress. Its marked reduction during the past decade is one of the outstanding phenomena of the new public health movement and a prime factor in lowering the general death rate.

INFANT MORTALITY CONTROLLABLE

From the humanitarian standpoint, the study and prevention of infant mortality has drawn the attention of philanthropic individuals for many years. It is only since the opening of the twentieth century, however, that a scientific study of the causes and results of infant mortality has been made and the findings applied to public health. The experience gained thus far in practical methods of community sanitation and infant hygiene has brought home convincing proof that the main factors entering into the mor-

talities of infancy can largely be controlled and the infant mortality rate considerably reduced. We can no longer defend ourselves behind the mediaeval fallacy that God sets the infant mortality rate.

In giving consideration to the fundamental factors which enter into the mortalities of infancy we soon discover that a number of the unfavorable conditions which determine a high infant mortality are also detrimental to life at all ages, although acting with diminishing force as age advances. Improvements in sanitation and hygiene, better social and economic circumstances and more intelligent understanding of mothers in the care of their babies, have had a decided effect in creating more wholesome conditions under which the older children may be reared. Future offspring are thus assured a better chance of surviving. Thus infant mortality is at once a reflection upon the past and a prophecy of the future.

INFANT MORTALITY AND PRE-SCHOOL YEARS

In seeking to prevent infant mortality we are laying the foundation for a healthier and more resistant childhood. Our statistical studies have progressed far enough to indicate that there is a high correlation between infant mortality and of mortality at ages from one to five years. It has been shown by Sir Arthur Newsholme in England and by Dr. S. Josephine Baker in New York City, that a high infant mortality rate goes hand in hand with a high death rate at ages one to five, and, conversely,

that when the infant mortality rate is reduced the rate at higher ages also comes down.

We must not overlook the additional fact that an excessive infant mortality predisposes those who survive to more damage than is the case with a low mortality. While it is recognized that the mortality in the years following infancy is surprisingly low, it is not so generally realized that the damage rate during those years is exceedingly high. In the pre-school period the child acquires most of the defects which are discovered later at school, and from which he suffers more or less throughout his entire life. The paramount importance of the pre-school years in determining the health-destiny of the child is just beginning to be recognized, and for these we must make as ample provisions as we have for the baby in arms.

REDUCTION OF MORTALITY DURING FIRST YEAR

The reduction of infant mortality thus far effected has taken place largely in the latter half of the first year of life. This has been brought about mainly by a reduction of the deaths from gastro-intestinal diseases, the result of greater insistence upon breast feeding, better milk and more intelligent modification of milk under the direction of physicians, and supervision and instruction of the nurses in the homes. Infant welfare centers and general campaigns of education have also played a large part.

NEONATAL DEATHS PREVENTABLE

With all this intensive effort in infant hygiene, very little if any progress has been made, outside of a few centers where special prenatal work has been carried on, in limiting deaths in the neonatal period. In this country upwards of 40 per cent of the deaths during the first year of life occur in the

first month. In some places it reaches as high as 50 per cent and above. It is conservatively estimated that 40 per cent of the neonatal deaths could have been prevented by proper prenatal and obstetrical care. The intensive prenatal services which have been organized in New York City, Boston and other cities in this country give promise of what we may hope to accomplish on a broader scale when the Federal Government and the states assume their full responsibility for the protection of maternity and infancy.

MATERNAL MORTALITY SHOCKING

The maternal mortality in this country is still shockingly high, and has been advancing to an alarming extent in recent years. The maternal mortality rates in the United States are uniformly higher than those in a number of foreign countries. This evidently is one of the factors which must be considered in any infant mortality study. The number of stillbirths and abortions, accidental and induced, are also abnormally high. While general sanitation and infant hygiene have had a marked effect in reducing infant mortality in the sixth, seventh and eighth months of life, they have scarcely made a dent upon the birth mortalities and apparently have not influenced in the least the number of stillbirths and abortions. For any further considerable reduction in infant mortality we must look to well organized prenatal and obstetrical service made available to every mother. In this the Federal Government and the states must coöperate with the local health authorities and voluntary organizations.

VARIABILITY OF INFANT MORTALITY

The most outstanding feature of infant mortality is its variability. It exhibits marked geographical, social, racial and seasonal fluctuations. The

infant mortality rate not only differs markedly throughout the same country, but in neighboring cities and even adjacent wards of the same city. From month to month it shows interesting variations, and year after year may exhibit changes which are difficult to explain.

To gain any fair estimate of the trend of infant mortality, then, we must study it under varying conditions over a series of years. The factors entering into it are so complex and interdependent that no one formula can be applied for its complete solution. Each factor must be separately weighed and its proper relation to others determined. From such study intensive methods may be evolved to reduce the mortality factor by factor until the lowest possible denominator is reached. At the same time we should never lose sight of the fact that infant hygiene is an integral part of preventive medicine. General public health measures may have considerable bearing upon the reduction of infant mortality.

DIRECT CAUSES OF INFANT MORTALITY

In considering the fundamental factors in infant mortality it will be convenient to think of them as both direct and contributing. In this brief summary it will not be possible to go into a statistical study of these factors to show their exact or relative importance. They will, therefore, be given in a broad classification only.

The direct causes of infant mortality may be grouped as follows:

Prenatal, Natal, and Neonatal.

Congenital defects. Malformations.

Congenital diseases (infectious diseases acquired from the mother, syphilis being the most important).

Prematurity (often due to congenital syphilis).

Indefinite causes listed as "atrophy," "congenital debility," "marasmus"

and "inanition," very often due to syphilis.

Atelectasis, Asphyxia ("cyanosis").

Diseases of the mother. Diseases of the heart, kidneys or lungs; the acute infectious diseases. Alcoholism, lead poisoning and malaria. The toxæmias of pregnancy resulting in eclampsia may cause premature death of the foetus.

Injuries at birth.

Gastro-Intestinal Diseases.

Diarrhoea and enteritis.

Diseases of the stomach.

Dysentery.

"Convulsions" are often one of the symptoms of gastro-intestinal disturbance. They may also be due to head injuries at birth. In the latter months of infancy convulsions may suggest a tuberculous meningitis. Convulsions may also usher in one of the acute infectious diseases of infancy and childhood.

Respiratory Diseases.

Pneumonia, broncho- or lobar.

Bronchitis.

These may be primary, but are frequently secondary to the acute infectious diseases as measles, whooping-cough, influenza, etc.

Infectious Diseases.

Syphilis (usually congenital).

Tuberculosis, generalized or tuberculous meningitis, usually acquired in the home environment; sometimes from tuberculous cow's milk.

Whooping-cough. Serious in early infancy with unfavorable sequelae.

Measles. Serious in infancy. Highest death rate from measles occurs in second year of life.

Influenza. During epidemics may be an important cause of death.

Scarlet fever (rarely a cause of death in infancy).

Diphtheria. High immunity in early infancy.

The prenatal and neonatal factors bulk largest in our present infant mortalities. The problems of ante-natal and neonatal pathology are beset with many difficulties, but an excellent be-

ginning in their solution has been made by Ballantyne and his co-workers. It is of great importance to realize that the welfare of the mother has both a direct and an indirect bearing upon the health of her unborn child. Prenatal care is synonymous with maternity welfare. The nutrition of the mother is reflected in the nutrition and growth of the foetus. The quality of the food even more than its quantity has been shown to have a marked influence on the unborn infant. Infectious diseases, notably syphilis, have a prejudicial effect upon the foetus.

The employment of the mother in the latter months of pregnancy in industry which calls for considerable exertion affects unfavorably the outcome for the child. Hence, steps have been taken in most of the European countries to throw about pregnant women in industry certain safeguards and to make provisions for them both before and after confinement. The tendency in those countries has been to extend maternity benefits in medical and nursing service and to make more ample provisions for the mother during the time she is out of work.

CONDITION OF THE MOTHER AND PRENATAL CARE

The nationality of the mother, her age, the number of her previous pregnancies, her social and economic status—all have more or less of a bearing upon the outcome of her pregnancy and the welfare of her baby. Illegitimacy has a decided influence upon the infant mortality, the rate being about twice as high as that for legitimate babies. The underlying causes of congenital defects and malformations are but little understood. These, however, form a small proportion of the deaths from prenatal causes. Over-work and exhaustion or injury to the mother, appear in a certain number of cases to

have brought on premature births and miscarriages. We are much in the dark as to the cause of many of the stillbirths. It is known that syphilis is the most prolific cause, and that over-work and strain are often contributing factors.

Summing up our present knowledge as it bears upon the prevention of antenatal mortality, it is fair to assume that between 40 and 50 per cent of the early deaths can be prevented by intensive prenatal care. Other factors will undoubtedly yield to treatment as our investigations become more exact. The intensive and thorough treatment of syphilis in pregnant women bids fair to reduce considerably the number of ante-natal deaths and to affect favorably the infant mortality rate among those who survive.

BUNGLING OBSTETRICS

The number of infants who perish at the time of birth or shortly thereafter, reflects seriously upon the present state of our midwifery. Too little attention is still given by our physicians and midwives to that prenatal care which assures a safe and happy outcome to pregnancy. The science of obstetrics has risen to almost an exact science comparable to that of mechanics, but its practice as carried on by the ordinary practitioner of medicine and the ignorant midwife is far from ideal. If the true causes of death of newborn infants were recorded on the death certificates it is probable that a high percentage of them could be traced to either lack of suitable prenatal care or to bungling obstetrics, or to both. The high maternal mortality rate in this country indicates that the mothers do not even receive all the care which our knowledge prompts. Are not the pages of Semmelweis and Holmes, of Pasteur and Lister open before us?

BIRTH CONTROL

While we face the appalling loss of life *in utero* or shortly after birth, we are confronted with another social malady which insidiously invites erotic stimulation but refuses to bear the responsibility, which should normally follow, of rearing offspring. Studies on depopulation in various countries have forced the conclusion that the decline in the birth rate, while having social and economic roots, is still largely due to voluntary limitation of the offspring either by means of contraceptive measures or abortion, if conception has "accidentally" taken place. Throughout the civilized world there is an ever widening propaganda for so-called "birth control" or "voluntary parenthood." Special periodicals are devoted to its cult and sold on the streets of our metropolitan centers. The movement has gained momentum in France, Holland and New Zealand and has spread in England and the United States.

Thus far the contraceptive methods advised have been practised largely by the upper social classes and those in good economic circumstances. Those most able to bear children and to meet the expense of their upbringing have been the very ones to shirk the responsibility while those for whom "birth control" is claimed to be a great boon still continue to "breed like rabbits." It is questionable, even if "birth control" should accomplish all that its devotees claim, whether any considerable proportion of the population would take all the necessary precautions under the urge of the "race preservation instinct." There is no question at the present time that the native American stocks are rapidly dying out as a result of their declining fertility and are being replaced by races or mixtures of races which do not refuse to bear chil-

dren. Take, for instance, the rise of the Russian and Polish Jews on the Atlantic coast and the Japanese and Italians on the Pacific slope.

THE DECLINING BIRTH RATE

It is instructive here to recall that the declining birth rate in France gave alarm as early as 1870 and led to a thorough study of the causes of infant mortality and their prevention. The intensive methods employed in France for child hygiene gave her the distinction of being the pioneer in modern maternity and infant welfare. Despite this, France today faces an even more serious situation than she did after the Franco-Prussian War as the undercurrents of "birth control" have formed eddies in a number of centers which prevent that healthy recuperation assured by a substantial increase of births. Germany also realized that motherhood should be protected and births encouraged. Before the War, Germany had set up well conceived measures for the protection of maternity and infancy. Special attention was given to maternity benefits. Every effort was made to keep babies with their mothers, and nursing benefits were supplied.

In England is witnessed the interesting phenomenon of a gradually increasing birth rate with an infant mortality rate which continues to fall, reaching the low figure of 80 in 1920. While it cannot be shown that there is an invariable relation between the birth rate and infant mortality, it is within bounds to say that no country with a declining birth rate can ultimately maintain itself unless definite steps are taken to reduce the infant mortality to its lowest limits. It is even then questionable whether the "stranger within the gates," who has carried out the Biblical mandate to

"be fruitful and multiply," will not eventually possess the land.

COMPLEXITY OF CONTRIBUTING FACTORS

The direct causes of infant mortality have already been listed. They may be followed in detail by consulting some of the books given as references at the end of this brief discussion. The principal causes, while acting as guides to our knowledge of infant mortality, do not carry us very far into the contributing factors. To gain some idea of the complexity and diversity of these contributing causes the most important of them are here given, although no attempt is made to assign their relative importance or mutual relationship:

CONTRIBUTING FACTORS INFLUENCING INFANT MORTALITY

Character of the Population.

- Racial stamina and resistance.
- Habits and customs.
- General intelligence.
- Age distribution.
- Homogeneity.
- Diversity of language.
- Industrial welfare.
- Stability of residence.

Meteorological.

- Variations in temperature.
- Relative humidity.
- Prevailing winds. Dust storms.
- Sunshine or fogs.

Births.

- Marked increase or decrease in birth rate.
- Changes in completeness of birth notification and registration.
- Relative number of first born in any one year.
- Proportion of male to female.
- Proportion of legitimate to illegitimate births.
- Number of stillbirths.
- Attendants at birth.

Nationality.

- Manners and customs.
- Prevalence of breast feeding.

- Immunity to certain diseases.
- Adaptability to new environment.
- White vs. Negro death rates.

Condition of the Mother.

- Poverty and bad social life.
- Shiftlessness and ignorance.
- Industrial employment.
- Age at marriage.
- Frequency of pregnancies.
- Urban or rural life.
- Malnutrition.
- Exhausting diseases
(Tuberculosis and syphilis).
- Alcoholism.
- Industrial poisonings.

Standards of Public Health.

- Milk and water supplies.
- Domestic and municipal sanitation.
- Character of prenatal and obstetric care.
- Housing conditions.
- Training of physicians and nurses in infant welfare.
- Organization of infant welfare.
- Methods of infant feeding.
(Proportion of breast feeding.)
- Provisions for treatment of syphilis and tuberculosis.
- Prevalence of vaccination.
- Supervision of midwives.
- Organization for handling epidemics.

Social and Economic Conditions. Wars and Their Aftermath.

- Unemployment.
- Food shortage.

SUMMARY

So many factors are seen to contribute to the mortalities of infancy that no general statement can be given to cover the whole subject. The most logical way to attack the problems which arise in connection with infant mortality is to study each factor thoroughly and apply intensively to each the medical, social and economic resources at our command. This method has resulted in a marked reduction of infant deaths from the gastro-intestinal diseases; it has made inroads upon the respiratory diseases and some of

the acute infections. It remains to be extended to prenatal, natal and neo-natal causes of death and to the final conquest of syphilis and tuberculosis.

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Community Measures to Conserve Child Life

By ELLEN C. POTTER, M.D.

Director, Children's Bureau, Department of Public Welfare, Pennsylvania

IT is by "painful steps and slow" that organized society has found its way to even the present inadequate sense of social responsibility.

Tremendous social upheavals, threatening the very foundations of society itself, have, as a rule, been the compelling forces which have marked

forward steps. Stated otherwise, society has advanced in the handling of the problems of special groups or has elevated the required standards of welfare for such groups only in response to a selfish impulse for self-preservation.

With a certain amount of complaisance, modern society has come to look

upon itself as progressing more rapidly along lines of social welfare than was the case with earlier generations, pointing with pride to the rapid advance-made along child welfare lines as evidence of the fact.

It is undoubtedly true that within the last ten years remarkable strides have been made, looking to the physical and mental health and social well being of the child, but society did not evolve out of its inner consciousness a purely altruistic motive which carried it forward—the catastrophe of the World War furnished the spur to this rapid progress. The conservation of the race and civilized society demanded that the child be safeguarded, and society, once more in response to selfish interest, moved forward.

In safeguarding child life and health, adult society also serves its own interests; whatever measures are taken by the community to conserve the life of the child react to improve living conditions for the whole community. Child welfare, in all its implications, conceived as anything less than a movement which benefits society as a whole fails of full realization. But, human beings are so constituted that they prefer to believe that they are actuated by unselfish motives. While an appeal made to a community today to safeguard the child is sure of instant response, the community is conscious only of an unselfish motive in this response. On that as a foundation can be built up the structure of public welfare which shall be all inclusive.

THE ORIGINAL METHOD OF APPROACH TO CHILD CONSERVATION

If we look back over the early years in which work for children was first undertaken we find that the mode of approach was through the child already handicapped. The child was sick, crippled, orphaned, defective,

hungry, neglected; and to relieve these conditions there were established hospitals, dispensaries, orphan asylums, "milk and ice funds," as well as other relief funds and agencies. No one could resist the appeal of the suffering child.

The poor boards and the poor farm provided the chief relief to be offered by the county and town, while the other phases of child conservation work were made available by volunteer agencies.

THE MODERN APPROACH TO CHILD CONSERVATION

The modern approach to child conservation, whether along lines of health or social betterment, is along lines of prevention; the aim shifts from the relief of suffering and of handicaps of one sort or another from which surviving children may suffer, to the actual conserving of life itself to thousands of children, who under the old order would have died; and the insuring to all children of physical and mental health together with full opportunity for development and success.

Volunteer agencies have as always demonstrated methods and have outlined policies to be pursued in this vitally important field, but organized society, as represented by government, whether borough, town, state or national, has as yet assumed but a very small part of the program as its responsibility; or if assumed, the activities are performed only in a perfunctory way. Much education of officials and of the public is necessary before certain of these activities will be taken over as an integral part of government; *i.e.*, before the community and school nurse, for example, shall be looked upon as quite as essential to proper administration of town or county affairs as the policeman or tax collector, the sheriff or the district attorney.

OUR PURPOSE DEFINED

We shall attempt in this discussion to limit ourselves to a consideration of community measures which are essential to the conservation of child life and we shall attempt to indicate a practical method of approach to their realization.

We interpret "the conservation of child life" to mean not only the minimizing of infant mortality but the assurance to all young life in the community of health, both mental and physical, happiness and an opportunity for full development and success.

THREE PHASES IN DEVELOPMENT OF COMMUNITY MEASURES

The problem which is presented, divides itself into three phases: First, the formulation of an adequate program of community measures for the conservation of child life; second, the organization of existing agencies in the community for the promotion of this program; third, the education of the community to the realization that the entire program is the direct responsibility of organized government, and that it is their responsibility as citizens to transfer the support of the program to the official budget to be provided for out of the tax rates, whether national, state or local, leaving to private agencies, the pioneer field of experimentation and path-finding to even more efficient service.

THE "COMMUNITY" DEFINED

Before outlining community measures which are essential if child life is to be conserved, we must determine what shall constitute our community. It should be of such size as to afford the probability of securing leadership from among its people; it should contain within its borders sufficient wealth to make it probable that adequate funds will be available to carry on a

worthy program, whether as a volunteer enterprise or a project supported out of the taxes; existing conditions, whether they be geographical, political, or economic should not be such as to make harmonious coöperation impossible.

For Pennsylvania, at least, the county, with its political, educational, health and judicial organizations already functioning on that basis and correlated with the state as a supervising and standardizing agency, affords the ideal unit for community organization for child conservation. Within the county, cities, boroughs and townships are to be considered as working units, capable of conducting certain phases of the work independently, as for example the well baby clinic, but for other phases dependent upon and coöperating with the other units within the county; a motor dental unit or a maternity hospital service being an illustration in point.

WHAT SHALL CONSTITUTE AN ADEQUATE PROGRAM?

We have stated as our general proposition that the modern approach to the whole subject must be by way of prevention. We are at present traveling a vicious circle of ignorance as to the simple laws of health on the part of the adult and child, of the rich and poor, of the educated and uneducated, so that we may make our attack at any point of the circle and ultimately travel the whole circumference before our task is completed.

Let us, then, lay out our program in logical sequence from the prenatal period, recognizing as we do so that at that point in our circle we still have before us the problem of training men and women in fundamentals of racial health and worthy parenthood, which alone can insure health and full opportunity for development to the child.

In brief, our program may be stated to be that laid down in the Minimum Standards for Child Welfare, adopted by the Washington and regional conferences on child welfare in 1919.¹

In the space allotted it is not possible to do more than touch upon the high spots indicated in that report, but for the purpose of developing our idea of community organization especial reference must be made to the standards as they relate to the mother and her young child.

FOR THE MOTHER AND YOUNG CHILD

No community, large or small, may consider that it has laid adequate foundations for the conservation of child life, if it has not made provision for a prenatal service for pregnant woman; infant consultation service to "Keep the Well Child Well"; and pre-school clinics for the purpose of establishing such vigorous health in the young child that he shall enter upon his school career unhampered by physical defects and faulty health habits.

Coincident with these provisions, there should be available maternity wards in general hospitals or special maternity homes or hospitals within reach of even the more remote parts of the community, in order to insure safety to mother and child at the time of delivery. Maternity wards and hospitals, however, do not insure safety unless conducted by skilled obstetricians and obstetrical nurses; this necessity at once brings us face to face with the problem of standards of medical and nursing education and hospital administration. Obviously such standards can be set up only by state or national authority and we are forced to the conclusion, thus early, that our "community," to handle the

child conservation problem effectively, must be conceived as something larger than the borough or town or county. County organization, efficient as it may be, cannot function properly unless supported by adequate standards on the part of the state departments of health, education, welfare, labor and the judicial system. Moreover, these standards must be more than paper standards and must be interpreted to the local communities by responsible state officials.

The field of service to the young child and his mother is not covered without the day nursery, the "toddlers playground" and the playground with its athletic field and community center for the use of the entire family. Until economic conditions are adjusted so that the mother is not called upon to work outside of her home, the day nursery must be looked upon as an essential factor in the conservation of the life of the child, and the playground must provide the field for the development of character and a wholesome outlet for the child's energies.

FOR GENERAL COMMUNITY SANITATION

Before concerning ourselves further with the community measures which must be outlined for the conservation of the life of the child of school age, let us consider those measures which are fundamental to life conservation of all ages, but which are especially needed by the infant and the young child who is susceptible to all environmental conditions.

General community sanitation is an absolute prerequisite to any adequate program of child conservation. Without this, dabbling in "Well Baby Clinics," "Health Centers," and "Fly Campaigns," is but palliating symptoms, while many of the underlying causes of infant mortality and physical handicap remain. The community

¹Children's Bureau publication, Conference Series, No. 2, No. 62.

must insure to itself, for the sake of the child, pure water; adequate sewage disposal; clean streets (these presuppose a proper street surface); proper housing; proper garbage collection and disposal; the elimination of nuisances of all sorts, especially of fly breeding spots; such adequate regulation and inspection as will insure a pure food and milk supply. In addition, there must be the enforcement of such quarantine regulations that the danger of spread of contagious disease shall be reduced to a minimum.

To insure these community measures the machinery is already in existence. The local and state health officer, board of health, department of health, department of public safety, department of public works, or whatever designations may be given the special agencies involved, are ready to function provided the citizens so direct. If they do not function it is the wish of the community that this should be so, for has not the community, in the use it has made of its citizenship, placed men and women in office to represent it and to act for it in these matters?

FOR THE SCHOOL CHILD

No more important agency exists for the conservation of child life than is to be found in the public school system; and yet up to this time this opportunity for this special service has been very largely neglected. For a period of five hours a day over several months of the year, for at least eight years in the case of the vast majority of children, in the most plastic period in the life of the child, he is in compulsory attendance upon the school. Adequate courses in the public schools in general health education and physical training will go far to protect the life and health of the individual child, and courses in home economics will lay the future foundation for intelligent home

making, which is the only basis on which child welfare can be made secure. The public school system offers an unparalleled opportunity for at least an annual stock taking of the physical health of the children of the community, for the correction of defects and the control of contagious disease through an adequate system of school medical, or let us say, school health inspection and follow-up.

The special class for the mentally defective in the local school should be linked up with suitable state provision for the careful training of these same children during the adolescent period, followed by probation for those who may safely be at large and permanent institutional care for others, especially the woman of child-bearing age. This provision is essential if the propagation of defective stock is to be minimized and if unskilled and irresponsible parental care, a factor playing a large part in infant mortality, is to be eliminated.

Vocational guidance is a necessary part of the service to be rendered by the school system if the child is to be given his full opportunity. His mental and physical health depend upon the nicety of adjustment made by him to his environment.

FOR THE CHILD IN GAINFUL OCCUPATIONS

A community program for the conservation of child life must include such regulations and their enforcement as shall prevent the employment of the child before the fourteenth, preferably before the sixteenth year. When he is so employed the work must be such as is adjusted to his physical and mental capacities and should be done only under proper sanitary and moral conditions.

Such a program calls for continuation schools, probation officers, factory

inspectors and health examiners. The latter may well be attached to the public school health inspection system. Free dispensary or hospital service should be provided for the correction of defects of eye, ear, nose, throat and teeth, which service is also essential to the success of school health inspection, and to work for the pre-school child.

FOR DEPENDENT, NEGLECTED, DELINQUENT OR DEFECTIVE CHILDREN

All the measures previously outlined for the normal child (if he may be so defined) must hold with even greater force for this group of children, plus the added provision for child placing and supervision, including some form of mothers' assistance. There is no room in any modern program for orphan asylums but for the defective child, institutional care may be essential.

The juvenile court is an absolutely necessary factor in the handling of many problems presented by this group and must be included with its probation officers and social workers.

FOR ALL CHILDREN

Mental and physical health depends very largely upon wholesome recreational opportunities offered the growing child and the adolescent. The supervised playground and community center have already been noted. There must, however, be regulation and supervision of commercialized recreation. Proper illumination of parks, playgrounds and highways, and adequate patrolling, by both men and women officers, are essential to community morale and the safety of children. Such provisions will go far to eliminate the "red light district," prostitution and venereal disease, the great scourge of infant life and health.

It is superfluous, perhaps, to state

that good roads and transportation facilities are essential if child conservation measures are to be made effective. Without these facilities it is impossible for health, education or other welfare activities to reach beyond the more densely populated centers in any county, for many months during the year. They must therefore be included as an integral part of our program.

This skeleton of the community program, which has not touched at all certain great economic problems which society must ultimately adjust, will, to the specialist in the several lines, seem very meager; it is intended to be merely suggestive and to afford a "bird's eye view" of the broad scope of the field to be covered. It is only by a vision of the whole problem and the great need that we may expect to capture the imagination of our "community" and translate its good intentions into actual service.

HOW IS SUCH A PROGRAM TO BE INITIATED?

Nora Milnes says in her discussion of child welfare,² "The problems of the child are never the beginning; they are but the end of other social problems." This is true, but, it is equally true that the way to the solution of these "other social problems" is through the child; the community can be led to remedy conditions and to plan well for the future when it is once thoroughly alive to the fact that the welfare of the child is jeopardized by its negligence.

In every community there are always a few men and women who recognize the need for improved conditions, and who believe that it is possible to coördinate community activities for the sake of the child; but their knowledge of the difficulties to be overcome in the community, not the least of which is apathy, is sufficiently deaden-

² *Child Welfare*. E. P. Dutton Co., New York.

ing to prevent the initiation of effort on their part. It is, therefore, essential that the spark which is to stimulate the movement for organization should be introduced from without the confines of the "local community." Only by frequent contact with the individual who has first hand knowledge of difficulties overcome under similar conditions can the spirit of optimism, which is essential to continued effort, be sustained among the local leaders and workers.

The ideal approach to organization in the local community for the conservation of child life is through the legally constituted children's division of the department of health or department of welfare, of the state, or through the separately constituted children's commission or board, depending upon the type of state organization. This presupposes that these state departments are so officered that *real* leadership is provided, and that a clear vision of the problems to be attacked and the methods to be employed in their solution, are part of the official equipment. If, on the other hand, the personnel of the state departments is recruited from among the "politically elect" and not from among the temperamentally fitted and technically trained, little hope for official leadership from this source can be entertained.

The alternative then presented is the initiative and leadership provided by the great national organization concerned with child welfare. We are about to witness a splendid demonstration of this sort on the part of the National Child Health Council, at Mansfield, Ohio, which should provide us with convincing data as to method, etc., within the next five years.

The advantage to be gained through leadership provided by the state as contrasted with that provided by unofficial organizations lies in this, that

from the beginning until the end (which is the full realization of the program), the movement is of necessity recognized as an expression of the will of all the people through their duly appointed or elected representatives. There is, therefore, an assurance of permanence and official recognition and support, which is not assured in the voluntary undertaking.

PUBLICITY

The key to an aroused community spirit is publicity. Unless individuals are aware of the need, unless they are made to understand that there are rational measures which can be applied to meet the need, they will not take action. It is, therefore, of prime importance that publicity for the child conservation program should be undertaken by the public press and that the leaders who are responsible for the initiation of the movement, whether representatives of the state or of the volunteer organization, should be heard and seen in the communities in which action is to be taken. *Personal contact is essential.*

Too much emphasis cannot be placed upon the fact that our "peripheral contact" with our communities, whether it be from our state headquarters or our national organization, must be made by men and women of the highest type, if our undertaking is to be successful. It is the sparsely settled county, it is the remote community which is in need of leadership, inspiration, stimulation; it is the children of these communities who are in dire straits; to help them, our best workers are none too good. Too often we have failed in our efforts to secure community action because we have sent uninspired messengers to carry our gospel and because the director of the enterprise has been "saved" for the larger cities.

ORGANIZATION

The second step is community organization. This implies a search for local leadership and the coördination of the activities of agencies already in the field, not the creation of a new organization. It implies, ultimately, the union of volunteer agencies with the legally constituted government and the gradual absorption into the official budget, of the support of the child conservation program. In order to accomplish this, there is need of a group of community organizers within the state organization or volunteer agency, who shall follow up the publicity in any given community and develop therein a working unit to promote the welfare of children. The community organizers should be accredited and responsible to the children's division, of a state organization, or should be part of the field force of the volunteer agency.

These community organizers, with the whole program in mind, should aim to set up an organization within the county, consisting of: a county chairman; a county committee of not less than five members; a county council, composed of a representative from every organization functioning on a county basis, and local (city, borough and township) sub-committees responsible to the county chairman—all officially designated as representing the state governmental unit with which they are connected; in Pennsylvania, the State Department of Health.

Experience seems to indicate that the county chairman of such an organization may well be a woman. Service for children makes a distinct appeal to women. Social welfare phases of government are those particularly needing the qualities possessed by women, and work done by them in a semi-official capacity in this type of

county organization, will be of invaluable training for future official work and will at the same time make an immediate contribution to public welfare.

This comprehensive scheme of organization cannot be completed in a day or a year. With the limited funds at the command of either state or volunteer agencies it is obvious that the staff organizers cannot remain for extended periods in a single community if an effort is to be made to develop the idea on a state-wide scale. The growth of the county organization (and that of its subdivisions) must be relatively slow and must call for repeated visits on the part of the organizers and other members of the headquarters staff. The growth must be that of the hardy perennial variety and not that of the mushroom type.

There is a great advantage to be gained when the attempt at organization is undertaken on a state-wide scale. The American temperament is stimulated by "drives" and "days" or "weeks" to mass action to accomplish a specific purpose—whether it be the collection of money, the promulgation of an idea, such as "safety first" or "clean-up weeks" or what not. When "everybody's doing it" it is infinitely easier to stimulate individual communities to the undertaking of a child conservation program. Advantage should be taken of this adjunct to a successful organization campaign.

We have said that our organization should include a county council, composed of representatives from all agencies conducting work for children and for health on a county basis. Much time, money and effort is to be saved by bringing these workers together for a discussion of the whole problem and for the mapping of the field of work, leaving each group, in so far as possible, in complete control of its special phases of the program.

The child-health station is the rallying point for organization. It is impossible to lay down a plan of action which will fit conditions in all communities but, in general, the aim must be to discover the most vigorous organization in the town or county and to link this up definitely with the support and operation of the health station. This may be the Red Cross, the woman's club, the Child Conservation League or other agency. There are times when the difficulty presented is that of selecting, from among several already in the field, the organization to which the child-health station service is to be delegated, while the remaining groups find their activities directed along other lines of child conservation. This selection requires infinite tact and much educational work among the groups to which the baby station is not definitely assigned.

Among the numerous organizations in the field, experience would seem to indicate that the Parent-Teacher-Associations may be counted upon to push work in the schools; the Women's Christian Temperance Union, a community recreational program and regulation of commercialized amusement, this bearing a very definite relation to their program for community morality; the Child Conservation League and child welfare committee of the woman's club may be counted upon for actual service as helpers in the health station with the children, themselves, and in social activities with the mothers—as may also many other groups of women. In counties in which the Red Cross is actively operating, they may assume the entire financial and operating problem of one or more centers; where less successful, they will at least provide for equipment or partial maintenance, and this is also true of the Tuberculosis Association.

In many communities the Visiting

Nurse Association or other nursing agency will provide the hours of public health nursing service necessary to promote the health center educational work; or the school board or an industrial plant may loan their nurse and physician for the purpose.

One of the necessary steps in the development of the child-health station is the location of the infants and pre-school children in the community, together with a dissemination of knowledge among the mothers of all classes that such a health service exists. For this purpose the League of Women Voters, with its ward and precinct organization, offers the most efficient agency for taking a census of these potential patrons of the health station. As the sub-committee on census of the child welfare committee, the League can, within a period of a very few days, gather the necessary data, on a simple form provided for that purpose, which will enable the nurse and her sub-committee on health station to get in touch with those homes most in need of help. Incidentally, this type of activity enables the League to test out its machinery which later can be used to further child welfare activities through good government.

The function of the organizer is, in very large measure, to point out to the community its already existing resources, and, having done this, to show them how they may be utilized for the realization of the child conservation program. In order to carry out the idea of unity of purpose it is well to designate the various organizations as sub-committees of the county or local child welfare committee; for example, the Red Cross becomes the "Child Health Station Committee"; the Parent-Teacher-Association, the "School Health Committee"; The Women's Christian Temperance Union, the "Health and Morals Committee," etc.

FINANCES

There is need of a finance committee in this preliminary stage of our community organization. On this committee there should be both men and women. In the larger centers the backing of the Rotary and Kiwanis Clubs and the Chamber of Commerce is invaluable and their representation on the finance sub-committee is desirable. The service of the committee may resolve itself into a coördinating of the collections and disbursements of the Red Cross and Tuberculosis Association (in which case these organizations must be strongly represented on the committee); or it may develop a community chest, out of which the child welfare work may be supported. In addition, it may link up with this volunteer activity the local board of education or board of health which, in return for service rendered by the public health nurse in the schools, or in contagious disease control, will pay into the treasury a sum of money annually.

In communities in which there are numerous small manufacturing plants which are without a "Welfare Department," the custom of soliciting from the employer an annual contribution of one dollar per person employed has helped in a large degree to solve the financial problem.

COÖPERATION OF MEDICAL PROFESSION

To insure the success of this preliminary phase of our child conservation movement, as embodied in the activities of the child-health station, the coöperation of the physicians of a community is essential. There is a definite advantage, therefore, in having the program initiated by the child-health division of the state health department, with the distinct understanding that the essence of the health station work is educa-

tional, preventive of disease and defect, and in no sense, competitive medical practice. On this rock of misunderstanding many an otherwise promising undertaking has been wrecked.

Up to this point we have dealt with our community organization and method along the old conventional lines. There is still the volunteer association, the membership dues, the "rummage sale," the bazaar, the contributions and other expedients by which the funds are raised for maintaining the enterprise, which, after all, reaches but a few of those who should be served. We still entertain the notion that "we" are doing something for "them."

Possibly we have added a little more of scientific efficiency in that we have attempted to eliminate some of the overlapping and misdirected efforts of the old individualistic method of child helping; but we have indicated that which is far more important: namely, that *the initiative for the movement should come from one of the legally constituted divisions of state government* rather than from an extra-governmental agency. We, that is, all the people, have begun through our already created agencies to do something for ourselves and our children.

THE CHILD HEALTH STATION NOT THE
END IN ITSELF

This first step in our program of organization, as expressed in the activities of the child-health station, is not an end in itself. It is the means to be used for the education of the whole community as to the crying need of all the other phases of service. The child-health station is the symbol of the most recently evolved method of service to the child. In the rural communities and small towns it is still in the path-finding and experimental stage and, therefore, a fit subject for volunteer endeavor; and

because it concentrates attention upon the child in a new and sometimes spectacular way, it is of great value in stirring the community conscience in regard to other needs of children inclusive of the need of improved general sanitation.

The machinery for the realization of the remaining phases of our program is already in existence in our public school system, our public health boards and officers, our borough or town councils, our judicial system, our highway and labor departments and the laws on our statute books. It remains for us to bring home to our communities that these agencies are theirs; that with relatively little effort and expense they can be made to function quite as efficiently as any private organization and that they will reach an infinitely larger clientele. Moreover, there are certain parts of the program which in the very nature of things cannot be undertaken by the private agency but must rest upon the state or municipality.

To make the transition from activities undertaken for the welfare of the child, organized and supported by volunteer agencies to those same activities undertaken and supported by all the people for themselves, that is, by organized government, it is necessary that the woman citizen (for it is she who holds the balance of power) should be informed as to the duties of local, county and state government, with especial reference to children, and also that she should understand the working of the political machinery by which her ideals for the child may be made a reality. In other words, women must be taught how to function as citizens and to be content with nothing less than efficient government, without which there can be no permanence to the child welfare program.

As has been said, women are inter-

ested in the "welfare" phases of government. It is along the lines of health, education and "social justice" that they are temperamentally fitted to make their own distinctive contribution to government; but the path from the primary to the election ballot box, and thence to the county commissioner, to borough or city council table, to the health board, school board, poor board, the road commissioners and the courts, has not been made plain nor has it been made easy.

The assessed valuation of property, the tax rate, the budget and a properly controlled public expenditure has little or no significance in relation to child welfare for the average voter, man or woman. Until these simple fundamentals have become part of every day thought and action, until the intricacies of political machinery have no more mysteries or terrors for the woman than has her Wilcox and Gibbs machine, with which she stitches the garments of her children, we cannot hope to secure marked progress in the coördination of volunteer and governmental activities, with especial reference to child welfare.

For the training of the woman citizen in these matters, our reliance must be placed upon the non-partisan educational agency, represented by the League of Women Voters, which as the sub-committee on census made its first contact with the child welfare movement. Its educational work in the rural community, small city and town should begin not with the provisions of the Federal Constitution and the functions of Congress, but with the factors in government which touch the daily life of mother and child. Only so will enthusiasm be kindled for undertaking the responsibilities of citizenship.

As daily vigilance in the home is necessary to insure the safety of the

child, so daily vigilance in connection with community measures for child welfare is essential if our ideals are to be attained. With leadership and standards provided in the state departments of health, education, welfare and labor, with the will to coördinate and standardize activities for child welfare within the county or district,

nothing is impossible. Time, only, is necessary to assure the result.

That time will be hastened when more of the time and energy devoted to private philanthropy is directed toward increased efficiency in government and when adequate appropriations to the health, educational and welfare activities of government are made.

Positive Health for American Childhood

By HARRIET L. LEETE, R. N.

Field Director, American Child Hygiene Association, Baltimore, Maryland

NOTHING great was ever achieved without vision, application and positive force. Is it not, therefore, wise for us at this point in our national life to pause, and to give serious consideration to the inquiry, "Wherein lies the greatest force or power for the development of our future national life?" Surely the answer admits of no controversy. Our greatest opportunities and responsibilities are with and for our potential citizens—our children.

What is of fundamental importance for American childhood? Despite the fact that some of the most marvelous minds in all ages have been forced to achieve fame under the strain of great physical handicaps, we nevertheless appreciate that health is of basic significance in the evolution of a vital national life.

What then is positive health? Positive health may be defined as meaning a body free from any handicaps, physical or mental, with a resistance which enables it to withstand environmental attacks to reduce its power, a vigor which radiates strength and happiness and, back of all this, a spiritual tone which is the keynote of an inspiring personality. Assuredly, it is the prerogative of childhood to have such health placed within its reach. Have

we given, are we giving our children opportunities for such all-round development of their physical, mental and spiritual life?

HEALTH STATUS

The findings of the examining boards for the United States army during the late war are convincing proof that as a nation we have been woefully negligent of our most precious asset—our children. The conclusions drawn, relative to the 35 per cent of the young men examined who were found unfit for active service, were that the highest percentage of defects was traceable to neglect in childhood.

Again, facing our problem in an endeavor to know just what it is, we learn from an examination of the twenty million children enrolled in the elementary public schools of the country that the commonest defects among these children are as follows:

- 1% mental deficiency
- [5% tuberculosis—present or past
- 5% defective hearing
- 25% defective sight
- 15% to 25% diseased tonsils or adenoids
- 10% to 20% deformed feet, spine or joints
- 50% to 75% defective teeth
- 15% to 25% malnutrition

THE POINT OF ATTACK

One of the most characteristic expressions of Americans is: "Let's do it now." Why then do we so complacently jog along, waiting for another cataclysm to engulf us before we wake up and actually face the situation? We have well-known methods which will improve conditions at least fifty per cent. It is high time we face with energy, and in a clear-cut fashion, our problem of bettering conditions for American children. When we do face the situation, and organize and train our army of potential citizens as thoroughly as we organized and trained our forces for war, we shall have a nation of which we justly may be proud. We shall have played fair with our children.

In approaching the problem, two considerations of a general nature ought to be kept in view. First, our goal must be positive. As has been aptly said, "The ultimate aim of the health service must be the development of positive, vital physical well-being, rather than the mere absence of disease." In the second place, success for our program demands that it should be the concern of the entire community, not of an isolated few.

THE FIRST REQUIREMENT

Specifically, the first requirement of a program for the positive health of American childhood is a thorough-going, periodical physical and mental examination of every child. The basis of our work must be a knowledge of the facts relating to the physical condition of every child. This sounds simple enough, yet such examinations are not being given in all too many cases, and in still more, unfortunately, have been thus far of a rather superficial nature.

NEXT STEPS

Keeping for a basis of action the known defects of every child, our next logical steps are:

1. To find the remedies.

2. To discover how best to secure them.

These two points may be summarized as follows:

1. Individual needs or personal hygiene.

2. Environmental needs or public sanitation.

Taking the report on the twenty million school children for whom data are available, what are the individual needs of America's children, and what is required to remedy the defects indicated?

INDIVIDUAL NEEDS

1. *Defective Teeth: 50% to 75%.* Obviously the first essential requirement in this connection is a sufficient number of dentists and dental hygienists. The present supply is inadequate. Tooth brush drills are another suggestion which has been endorsed as a graphic method of appeal for better care of the teeth, and which has also been of value as an educational force. Boston with its Forsythe Clinic, and Rochester with the Eastman Clinic, have made wonderful strides. These clinics have extended their services to the public school and have transmitted valuable information relative to the care of the teeth; but the personnel released has not been sufficient to care for all of the children who need attention.

However, the care and correction of defective teeth does not solve the problem entirely. As Dr. H. L. K. Shaw has pointed out in the October, 1920, number of *Mother and Child*, we must have a keen perception of the expectant mother's influence upon the health of

the child: we must plan to secure for her a proper diet if the child is to have sound teeth. We must give the child a chance for good teeth before he is in the world as a separate entity.

2. *Malnutrition: 15% to 25%.* The importance of proper nutrition is perhaps as well comprehended as that of any other single item in our child health campaign. Dr. E. V. McCollum's¹ statement on this point can hardly be improved upon. He says:

The opportune time to attain the maximum benefits of proper nutrition is in prenatal life and early infancy, and more concern should be directed toward the education of mothers concerning the benefits to be derived by their children as the results of right living on their part. . . . We would call attention again to the types of diets which succeed in the nutrition of man and of animals. They are the strictly carnivorous type in which practically all parts of the animal are eaten; the type so common in parts of the Orient, that is, that in which the leafy vegetables, such as spinach, cabbage, lettuce, turnip tops, beet tops and other leaves, find a prominent place in the diet; and lastly the diet such as we use in America, containing liberal amounts of milk and other dairy products. The trouble is we do not consume enough of the protective foods, milk and the leafy vegetables. These are so constituted as to correct the faults in a cereal, legume seed, tuber and meat diet, such as is common in our country today. The sooner we carry this information to every child in the land, and send him home with this message to his mother, the sooner will we have started on the right road toward better health and better physical development.

3. *Deformed feet, spine and joints: 10% to 20%.* Although we have been told that "rickets characterized by faulty bone growth is a national health problem and is essentially a dietary

one," and while we know that many deformities can be corrected or at least improved if sufficient heed is given while the bones are still pliable, it is apparent that there are many children with deformities resulting from a lack of proper attention. Even when proper attention is given, it is difficult in many cases to interest ignorant or over-worked parents so that they will be willing to follow instructions and invest money in the long and tedious process of correcting such deformities. Nevertheless, it is our definite responsibility to render patient scientific assistance, particularly, because of the many "fakirs" who guarantee immediate relief, only to disappear in a little while, leaving the parents sadder and wiser—and the children unaided.

4. *Diseased tonsils and adenoids: 15% to 25%.* Diseased tonsils or adenoids may cause obstruction and prevent proper nasal breathing, may make it easy for the child to take colds, may affect his hearing, interfere with healthful sleeping and lower his resistance. Their removal is so simple that it is peculiarly negligent for us to allow them to remain, especially when their removal would prove such a source of benefit. Dr. Richard M. Smith of Boston pertinently says, "Correct defects, don't merely detect them."

5. *Defective sight: 25%.*

6. *Defective hearing: 5%.* Much scientific testing of the mentality of school children has demonstrated the fact that frequently a seeming lack of mental response in reality is due to defective sight and hearing rather than to a lack of mental capacity. It would seem that in our schools and classes for mental defectives are many children who are there because of sense defects rather than from a lack of intelligence. These defects in particular require and yield to proper attention and care at an early stage.

¹Dr. McCollum, Professor of Chemical Hygiene in the School of Hygiene and Public Health in the Johns Hopkins University, is a noted authority on food values.—EDITOR'S NOTE.

7. *Tuberculosis: 5%.* It is evident that a much higher percentage of tuberculous children would be shown if more delicate tests were applied. Sir Arthur Newsholme reminds us as follows:

The highest death rate of any period of life is in the first five years of life; and in the first year after birth, one death out of every twenty-six from all causes is certified to be due to tuberculosis. The real proportion is probably higher, many deaths returned as due to pneumonia or bronchitis being cases of acute tuberculosis. Landouzy has stated that 27 per cent of the deaths in the first two years of life are caused by tuberculosis. Evidently in childhood there is but little resistance to the infection. If we are to reduce the amount of tuberculosis, the prevention of exposure to infection during the first four or five years of the child's life is of supreme importance.

The prevention of tuberculosis thus becomes to an important extent a matter of infant hygiene.

8. *Mental deficiency: 1%.* This is a very conservative estimate. Most studies show a somewhat higher rate of mental deficiency. We are only just touching this important phase of child life. I quote from Dr. C. Edgerton Carter, who writes regarding the mental health of the child, as follows:

So largely is preventive work among children a question of parental education, and so impossible of enforcement are personal health measures, that mental hygiene to be applied must have a practical and elemental basis which appeals to the comprehension of the parents, and for this reason by approaching the subject through the medium of the physical defects and disorders concerning which the parent has an intimate knowledge, one finds a welcome avenue to a fertile field.

Certain it is that we have wonderful opportunities for teaching the pre-school child good mental habits and self-control, habits which may insure

future happiness to himself and others.

9. *Heart disease among school children: 1.5% to 2%.* While this particular defect was not listed in the special report on twenty million school children, it cannot be passed by without a reference to its fundamental importance in a child-health program. Dr. Charles Hendee Smith of New York states:

During the last few years there has been a gradual awakening of consciousness to the fact that the cardiac problem has been too long put aside. . . . The large incidence of heart disease is unquestioned. Organic heart disease competes with tuberculosis and pneumonia for first place among the causes of death. It is true that death takes place in adult life, but the heart disease is commonly acquired during the school age. The number of cases of heart disease which are discovered in school surveys vary considerably, but every school survey detects a certain number of children with cardiac lesions. The estimates of the cases among school children in New York City give from 1.5 per cent to 2 per cent, that is, from eighteen thousand to twenty-five thousand. . . . If it would be possible to send the cardiac patient at the very out-set of his trouble to an institution built and constructed on the lines of our best tuberculosis sanatoria with special adaptations to the differences of the two diseases, who can foresee the tremendous difference in the outcome which would result for the large majority of our heart cases.

SOME ASPECTS OF PUBLIC SANITATION

Presupposing that the individual child in the home has received the necessary attention and care, the maintenance of health demands certain environmental safeguards under the control of public authority. The limitations of this paper forbid more than brief suggestions as to the nature of these safeguards.

1. *Control of contagion.* Repeatedly, some contagious disease runs its course among the children of the community,

leaving in its wake either death or after-effects, often vague but so serious as to handicap the child in later years. The seriousness of such outbreaks among school populations is coming more and more to be recognized, as well as the subsequent necessity of their control. Unfortunately there has been considerably less appreciation of their seriousness as affecting children of the pre-school age. A recent study of Massachusetts children insists that propaganda and methods of control should be directed more specifically at the age groups under three years. "It cannot be emphasized too strongly," continues the report, "that in these dangerous years when so many children die of measles and whooping-cough or other complications, the most careful medical attention and nursing are needed. . . . For a period of years (1913-1918) 90 per cent of the deaths from whooping-cough, and 79.5 per cent of those from measles have been under three years old. . . . Measuring our success by a reduction in deaths from these diseases, it is at once apparent that our results depend very largely on how successfully we prevent measles and whooping-cough in children under three. . . ."

This refers only to the deaths. No one knows how many children are handicapped for life as the result of after-effects of contagious diseases which have been allowed to run rampant. Much of the responsibility for these conditions rests as an environmental charge against our public control. Regardless of the fact that it seems impossible to control the situation by isolation or quarantine, we do know that the impossible can be accomplished often by education if we make it vivid and vigorous enough.

2. *Legislation.* A great deal of time, thought and money are spent annually to secure laws for the protection of our

animals, our industrial and farm products and our diverse property rights. No one questions such use of the law-making powers of society as paternalistic. Is it not high time (and why is it more paternalistic) that we give more anxious consideration to laws which affect the health and happiness of our children—laws which insure safe food supplies, especially milk and water; laws which control our sewage disposal, so that danger of contamination is eliminated; laws which make it imperative that house and school rooms be properly lighted and ventilated; laws which control our housing conditions?

3. *Housing.* The housing problem has a very definite place in a child health program. Sir Leslie Mackenzie in a paper on "The Child of the One Room House," summarizes this point in a very terse and effective manner. He writes:

Houses can be classified according to the families they accommodate: but they can also be classified according to the effects on the children. If the family is the growing point of society, the child is the growing point of the family. If you cannot understand social institutions unless you realize that they have their functions in the needs of the family, neither can you understand the functions of the family without realizing that they have their roots in the needs of the child.

4. *Good roads.* The inclusion of this factor in a discussion of public sanitation may at first glance appear to be questionable. It is obvious, of course, that it is of little importance as a factor in the health of city children. It must be remembered, however, that almost one-half of our population still lives under conditions listed by the census as rural, and that in large stretches of rural United States good roads are conspicuous by their absence. One has only to travel on wretched, and at times quite impassible roads, with a county

nurse to appreciate their very definite relation to the health of the child.

5. *Child labor.* Through the influence of the National Child Labor Committee, the Consumer's League and other interested organizations, we are improving the conditions and the laws relating to children who are gainfully employed. But in this, as in all of our legislative matters, not only must proper laws be made, but the means and will to enforcement are essential if results are to be obtained. Of the very greatest importance in this connection would be a universal understanding of the value of healthful surroundings for the child in industry.

A SPECIAL CHARGE

A comprehensive child health campaign involves, as a special responsibility, care for the health of dependent and other socially handicapped children. It is to the interest of society, no less than to the interest of these groups, that a health handicap should not be added to their other difficulties. Some of the most important measures in this connection which should be considered and put into practice are those relating to the child with the handicap of an unknown father. It has been said with truth that there may be illegitimate parents but there can be no illegitimate child.

HEALTH BOOKKEEPING

It cannot be emphasized too often that in order properly to face our task we must have our facts. We must keep our books accurately, and we must have and know our vital statistics. The United States in this respect is far behind other enlightened nations. In 1918, mortality statistics were available for only 77.8 per cent of the total population, while the birth registration area included but 53 per cent of the total estimated population. Vital statistics

are not only an index of an intelligent consideration of health matters, but the necessary basis as well.

HEALTH HABITS

Health for men and women demands health for children. Health for children means a building up of health habits. The building up of such habits is a task which cannot be accomplished solely by a professional group of workers. There opens here a wonderful opportunity for clubs and organizations of various kinds among adults, through the various measures used by health crusaders, health clowns, health leagues in the schools, boy and girl scout movements, etc. It is a work of education in which newspapers, magazines and moving pictures can play, each one, an important rôle.

PLACING THE RESPONSIBILITY

Where does the responsibility for periodical physical examinations, the correction of defects and the formation of health habits for every child, rest?

It rests, first of all, upon the parents—father and mother, or guardian. It is a responsibility which, except in the care of dependent children, cannot be shifted from their shoulders. The home must be inviolable, but the preservation of society demands that it must also be possible for sympathetic well-trained individuals to enter a home to assist in its improvement or rehabilitation. Any child-health campaign which does not recognize the fundamental importance of the influence of the parents in the home is doomed in large measure to failure.

However, it is frequently physically or financially impossible for the parents to extend adequate services for this purpose to their children: therefore, in order that such children shall not be handicapped, the burden of rendering adequate assistance must be assumed

by public authorities. This is particularly applicable in the country districts, for many times children living in remote corners can be reached in no other way. The rights of the children in the most isolated districts are as inalienable as are the rights of the children in the more populated centers. We have learned to look to our state departments for advice and assistance in various matters, and as each state has its own peculiar problems, it is of value, if not of the utmost importance, for each state to have a state child-health bureau or department. Furthermore, when such a bureau or department has been authorized, why handicap its functions and inhibit its activities by appropriating insufficient funds for its development?

STANDARDS

All social work, using the term in its broadest sense, requires the determination of, and the knowledge of, standards. Such standards are necessary to measure the dimensions of our task and to hold up as objectives toward which to progress. Thus, if we are to succeed in our positive health program for children, we must aim at something very definite and in this connection the standards submitted by the Children's Welfare Conference² held in 1919 under the auspices of the federal Children's Bureau, are invaluable. They were formulated with great care, and if we definitely meet them we shall know then how to take the next step.

² Cf. the article by Miss Lathrop in this volume, entitled, "Standards of Child Welfare."

TEST OF CIVILIZATION

It has been said that the most remarkable discovery of the present age, more remarkable than the telephone, automobile or aerial navigation, is the discovery of a social conscience. Perhaps it is this social conscience which has led us to appreciate that the test of our civilization lies in our attitude toward our children. As Secretary Hoover has so vividly put it, "Our responsibility for children is based not alone on human aspirations, but it is also based upon the necessity to secure physical, mental and moral health, and the economic and social progress of a nation. Every child that is delinquent in body, education or character is a charge upon the whole community as a whole and a menace to the community itself. The children are the army with which we must march to progress."

FINANCIAL ASPECTS

What of the cost of this program? Dare America say that she cannot afford to build for health? America is recognized as the nation of the greatest wealth in the world. If she cannot finance such a program of adequate care for childhood, what nation can? Billions of dollars annually appropriated by our national, state and local governmental bodies—and how are we building? Are we making the roads smooth and unobstructed for our potential citizens, or are we building rocky roads over which they must travel with weary steps and aching hearts?

Nutrition as a Factor in Physical Development

By E. V. McCOLLUM, PH.D., D.Sc.

School of Hygiene and Public Health of the Johns Hopkins University

EUROPE and America are now confronted with a very serious situation due to the physical deterioration of a large part of their peoples. In America probably half the children of the cities have, or have had rickets. Ninety per cent of all the children of school age are found to have decayed teeth. Over 20 per cent of them are over 10 per cent under the weight normal for their ages, and faulty posture is extraordinarily common. So serious is the condition of malnutrition among school children that a considerable number of organized agencies are now attempting in one way or another to arouse interest among teachers, school authorities and parents with a view to securing greater attention to the correction of physical defects.

There are two schools of active workers interested in the welfare of children at the present time. One of these, and by far the strongest in point of numbers, is the group which holds that the medical and dental clinics are the most important agencies in improving the health of children. According to their view, inspection for the discovery of infected tonsils, adenoids, ear infections or defects of hearing or of vision, faulty posture, decayed teeth and other physical defects, and their prompt and effective treatment, constitute the most effective method of dealing with the problem. They hold that the problem is essentially medical and should remain such.

The other group of workers who are concerned with the improvement of the health of children, favor the establishment of medical and dental

clinics, but maintain that the real problem is one of prevention rather than cure. They believe that the underlying cause of the physical inferiority of the present generation of children lies in faulty development, and that the chief factor responsible for this is faulty nutrition, due to unwise selection of food. They admit that diseased tonsils, adenoids or other conditions requiring medical attention, should be treated with dispatch. Decayed teeth are a menace to health and the cause of much discomfort, and early attention by a dentist can, through repair, afford protection to the health of the child and add to its comfort and usefulness. They believe, however, that the removal of the causes of physical inferiority is possible, and that this method alone offers prospect of relief from the burden of the health problems of children, which are now so great that adequate attention to them would constitute an almost intolerable burden in time, labor and money. I shall attempt to present a demonstration that the real problem is in great measure that of securing optimal development in prenatal life and in infancy and early childhood. This conclusion, as well as the conviction that the proper choice of food is the most effective method of achieving the purpose of bringing about better health and better physical development in childhood, has been forced upon me through experience in observing the effects of diets of many different kinds and qualities upon animals, and through a study of human experience with diets of a number of different types.

CAUSES OF MALNUTRITION

There is much misconception in the public mind as to the causes of malnutrition. The discovery of the existence of vitamins during the last decade and their popularization, has overshadowed in importance other dietary problems of as great or greater importance, so that many medical and chemical experts have failed, up to the present time, to see the subject in its proper perspective. "Lack of vitamins" is believed by many to be the most important thing to consider in human nutrition. This view of the subject is too narrow and, owing to its wide-spread prevalence, is likely to do much harm.

The evidence is conclusive that almost all peoples living under primitive conditions are physically well developed. One finds in skeletons of human beings who lived three or four hundred years ago along the Pacific Coast from Alaska to Peru, that there are no evidences of defective development, and that the teeth were essentially perfect. The early inhabitants of Iceland had perfect teeth as did the primitive Eskimo. The teeth of the peoples of Europe and America have deteriorated very rapidly during the last century, and parallel with this deterioration has run a general tendency to inferiority in physical development. The causes for this are not to be summed up in the simple statement, "lack of vitamins." The condition is brought about by a number of defects in the diet, and the remedy is to be found in a wise choice of food, not in taking preparations sold commercially. The logical basis for this conclusion can best be appreciated in the light of a brief account of the newer viewpoints brought to light by modern nutrition investigations.

In the popular mind the most at-

tractive feature of the subject of nutrition during recent times, is the spectacular effect of the lack of a sufficient amount of one or another of at least three chemical substances whose existence was not even suspected a few years ago. The dietary deficiency diseases, scurvy, beri-beri and xerophthalmia of a certain type, result from specific starvation for one or another of these substances. The optimum amount of these three substances in the diet cannot be stated in the light of our present knowledge, but the content of each of them in certain of our more important foodstuffs is sufficiently well known to render it possible to plan diets so as to guarantee a reasonable degree of safety.

Animal experimentation has shown that there are great differences in the biological values of the proteins derived from different sources. This difference depends on the fact that the proteins in different foodstuffs yield varying amounts of the amino-acids or digestion products. If the yields of the several amino-acids is such as to make possible the efficient transformation of food proteins into tissue proteins, the proteins have a high value. If, however, one or more of the amino-acids is present in such small amounts as to make it impossible to utilize the more abundant amino-acids, it forms the limiting factor that determines the value of the protein in nutrition. Many of these digestion products are indispensable in the diet, since they cannot be synthetically produced within the tissues. In considering the value of a natural foodstuff or of a diet consisting of a variety of substances, the idea of quality of protein enters into the calculations of the dietitian of today.

Our knowledge of the great variation in the biological values of proteins from various sources throws a new

light on a possible source of injury to the body tissues. Excessive feeding of proteins is generally held to lay a burden on the organism because of the magnitude of the task of metabolizing the quantity of amino-acids absorbed. From what we know of the intermediate compounds formed in the catabolism of amino-acids, there can be little doubt that some are a physiological abomination, and that dealing with them by the glandular structure is not without a degree of unfavorable effect that in time produces visible alteration in functional capacity. It seems logical to assume that physiological well-being will be best promoted by the employment in the diet of proteins so constituted as to be transformable with little waste into tissue proteins.

THE THREE UNSUSPECTED ESSENTIALS OF DIET

The best analysis of a foodstuff which the chemist is able to make, determines the amounts of protein, carbohydrate (starches and sugars), fats and oils, and mineral salts that it contains. For more than thirteen years it has been known, however, that when a mixture of these substances, each carefully purified, is fed to a young animal, the latter cannot grow or live long. The reason was very difficult to ascertain, for it is due to the lack of certain substances of a moderately unstable nature, the existence of which, as we have pointed out, was not even suspected. Certain species of animals, such as the rat, appear to require, in addition to the long recognized dietary complexes, but two of the unidentified dietary essentials. The most common designation of these is perhaps the term "vitamin," which includes fat-soluble A and water-soluble B. No less than twenty-five names have been invented

for these substances. Other species of animals, such as man, guinea-pig and monkey, require three, the additional substance being called water-soluble C. These terms have been applied provisionally, pending the discovery of the chemical natures of these interesting substances.

It is interesting to consider the distribution of the three unknown substances that the diet must contain. The substance, fat-soluble A, is found in butter fat and egg yolk fats, and in the fats from the interior of the cells of the glandular organs of animals, *e.g.*, the liver and kidney, in greater abundance than in any other foods. Leaves of plants constitute the next important source. The seeds, tubers and fleshy roots are all relatively poor in this substance. It has been suggested that among the latter those which contain yellow pigment are richest.

The water-soluble B dietary factor is widely distributed among natural foodstuffs. The only common foods lacking in it are polished rice, the sugars and starches, and the fats and oils from both animal and vegetable sources. Food containing small quantities of it are: white flour, degerminated cornmeal, macaroni, spaghetti and other products prepared principally from bolted wheat flour. All whole seed products, tubers and fleshy roots, leafy foods, milk and eggs contain it in relative abundance. Muscle cuts of meats are very poor in it, but the glandular organs contain it in abundance.

The water-soluble C is abundant only in fresh vegetables, fruits and fresh milk from cows in pasture. Cooked and dried foods have in great measure lost their peculiar dietary properties with respect to this substance.

The effects of specific starvation from one or another of these three

substances are of special interest. Each of them is necessary in the diet in order to prevent the development of a specific syndrome of what we call, collectively, deficiency diseases.

One of the so-called deficiency diseases, which is caused by a lack of fat-soluble A in the diet, is characterized by changes in the eyes, in which edema, inflammation and, in some cases, perforation are the most important. Much remains to be learned regarding the histology and pathology of starvation for this dietary complex. Without it, growth is impossible and death soon intervenes. There is much evidence that a lack of a sufficient amount of fat-soluble A is one of the factors associated with the etiology of rickets.

A lack, either relative or absolute, of the second dietary factor of unknown chemical nature, water-soluble B, leads to the development of a condition of polyneuritis which in man is known as beri-beri. Paralysis is the most striking general feature of the disease. The third of the dietary complexes under consideration is that which prevents the development of the syndrome of scurvy. It is the least stable of the three. The anti-neuritic substance is the most stable.

For several years the three substances just discussed have in the popular mind overshadowed in importance the long recognized dietary essentials. It should be emphasized that there is no basis in fact for considering them any more important than the proteins or than one of the essential mineral elements. All are indispensable components of the diet and are, therefore, of essentially equal importance. Any appraisal of the quality of a diet must include a consideration of the quality and quantity of protein; the content of each of the necessary mineral elements; the con-

tent of each of the substances concerned with the etiology of the deficiency diseases, and the availability of the carbohydrates.

DIETARY PROPERTIES OF OUR NATURAL FOODSTUFFS

After the factors which operate to make a diet complete and satisfactory were appreciated, a series of studies was carried out with a view to determining the nature and extent of the dietary shortcomings of each of the more important of our natural foodstuffs. In the light of these studies it has become possible to make certain generalizations of far-reaching importance in the nutrition of man and animals. On these observations is based a new type of classification of the vegetable foodstuffs, depending on the function of the part of the plant from which they are derived.

It has been found that all those parts of plants that have the functions of storage tissues, viz., the seed, tuber and fleshy root, have remarkably similar dietary properties and similar shortcomings. Notwithstanding the great difference between the legume seeds, such as the pea and bean on the one hand and the potato or turnip on the other, they have very nearly the same dietary values in certain respects. All of the cereal grains, legume seeds, tubers and edible roots are deficient in some degree in at least three dietary factors. All contain proteins of relatively poor quality; all contain too little of certain mineral elements, especially calcium, sodium and chlorin, and all are deficient in fat-soluble A. As stated above, there may be a few exceptions to the latter generalization in the case of certain yellow pigmented roots.

The leaf of the plant possesses very different dietary properties from the seed. The palatable leaves are alone

a complete food for those types of animals that have digestive tracts sufficiently capacious to enable them to eat a sufficiently large amount to meet their energy requirements. This superiority in dietary properties correlates with the special function of the leaf as contrasted with the storage tissue, such as the seed, tuber or root. The leaf consists of actively functioning protoplasm supported by skeletal tissue. It is the seat of the synthesis of proteins, carbohydrates and fats. It is the seat of active respiration and metabolism. The seed, tuber and fleshy root represent, on the other hand, packages of reserve food materials, with a few living elements. In general the structures of the storage tissues do not contain all the complexes necessary for the construction of living protoplasm, and are accordingly incomplete foods.

A similar parallel between function and dietary properties can be drawn in the case of the highly specialized muscle tissue on the one hand and the actively metabolizing glandular tissues on the other. The muscle tissue has dietary properties almost identical with those of the seed, tuber or root in all respects except richness of protein. It lacks calcium, sodium and chlorin, fat-soluble A, water-soluble B and water-soluble C. The glandular organs, such as the liver and kidney, are much more complete foods. Indeed, they have all the complexes that are essential for the construction of living tissue, and when supplemented with certain salts, a carbohydrate, such as starch, approximate much more nearly a complete food than would a similar amount of muscle tissue with starch.

SUCCESSFUL DIETS

Since there are closely similar dietary properties in the storage tissues of

plants and of muscle tissue of animals, it should be expected that mixtures of these even in considerable numbers should form unsatisfactory diets. In many feeding experiments this has been shown to be the case. Although it is possible for a young animal to grow on a seed, tuber, root and muscle cut of meat diet, its growth is never normal in rate or extent. It will always be stunted and will fall below the normal standard of performance in reproduction and rearing of young, and in span of life.

Consistently unsatisfactory results have been secured on diets consisting of wheat flour, cornmeal, rice, peas, beans, potato, turnip, beet, rolled oats and round steak. The round steak was included to the extent of 10 per cent of the dry matter of the diet.

This leads us to a consideration of diets that succeed in the nutrition of animals. In an extensive inquiry, covering twelve years and based on nearly 4,000 feeding experiments, we have succeeded in nourishing animals in an approximately normal fashion with but three types of diets.

It is possible to select carnivorous foods so as to secure a fairly satisfactory diet entirely derived from animal tissues. Young animals cannot grow or long remain in health when restricted to muscle tissue as their sole food. When blood, liver, kidney and other glandular tissues are selected, together with a certain amount of bone substance, the food supply is sufficiently good to lead to normal development. Muscle tissue must be liberally supplemented with glandular organs to make possible success with the strictly carnivorous diet. The carnivorous diet has been used by man occasionally, the Eskimo and some American Indians being examples.

It has been found possible to sup-

plement the seed, tuber, root and muscle meat type of diet with liberal amounts of the leafy vegetables and secure a fairly satisfactory diet. A liberal supplementing with leaf is required in order to make good the deficiencies of the remainder of the diet. This type of diet is common among the Orientals.

The third type of successful diet is that derived from cereals, legume seeds, tubers and fleshy roots, with or without meats, supplemented with liberal amounts of milk. Milk is so constituted as to make good all the deficiencies of the classes of foods just enumerated.

It is so important to appreciate the special qualities of the leafy vegetables and milk that I have been accustomed to designate these as the protective foods. They are protective because they are especially rich in those elements and complexes in which the storage tissues of plants and muscle tissue are poor.

EXPERIMENTS IN FAULTY NUTRITION

Systematic animal experimentation has revealed data of another kind which is of very great importance to us as an index to the importance of the right selection of food in the promotion of well-being. Such experiments have been undertaken at the author's laboratory to determine how sensitive animals are to diets in which the faults are of a minor character. Hitherto, emphasis has been laid almost entirely upon the "deficiency diseases," scurvy, beri-beri and possibly others, such as pellagra and rickets. The question which we asked ourselves was this: Are there deleterious effects of faulty nutrition caused by diets in which the deficiency is not of a nature or of sufficient gravity to induce a "deficiency disease," but which can be demonstrated in the

life history of experimental animals? Is the body immune to faulty diet up to a point of deprivation of one or another dietary essential where the metabolic functions break down and clinically observable effects become apparent?

We have sought to test this proposition by restricting young rats throughout life, and their progeny, if any, throughout several generations, to diets in which the faults were of a very slight nature. A large number of groups of experimental animals were placed upon diets which were of good quality with respect to all factors other than the protein moiety. These were derived from a number of sources and always from a combination of two wholesome natural foods, such as two cereal grains, two legume seeds, a legume seed and an animal tissue, *e.g.*, muscle, kidney, liver, etc. In every case the protein content of the diet was adjusted at 9 per cent of the food mixture. This was done because experience had shown that when the quality of the protein is excellent, this is the smallest amount that will suffice to meet the nutritive needs of the animals during growth, promoting growth at the maximum rate, and support approximately the maximal fertility, making possible the rearing of most of their young. If the proteins of the food are of a quality which might be classed as good rather than excellent, the growth may be normal and the fertility fairly high, but many of the young will be lost during the nursing period. Poor proteins will not support growth at the optimal rate when they constitute but 9 per cent of the food mixture, and the fertility will be low.

In this study we observed, therefore, the effect of a single defect in the diet, and that not of a very pronounced character, on the growth, fertility, infant mortality and tendency to physical

deterioration of families restricted to a monotonous dietary regimen. Observations were also made on the length of life, the age at which the first signs of senility appeared and the effect of the diet on the nervous system of the animal. These afford very interesting data for correlation with human experience.

It was found that a diet may be good enough to enable young animals to grow at the normal rate and to the full adult size, and support fairly high fertility, yet, solely because of the quality and amount of the protein which it contains, the animals may fail to nurse their young successfully to a state of independence. The young may require a nursing period of forty to sixty days instead of the normal twenty-five days before they can be safely weaned, owing to their stunted growth. This long period of nursing is entirely due to failure of the mothers to secrete milk of satisfactory character for the nutrition of their young, because their diet was not properly constituted.

If the quality of the protein in the diet is somewhat below that which would produce the results described in the preceding paragraph, fertility may be lowered, and the mortality of the young born raised even to one hundred per cent. The mortality is from two causes. One group of mother rats destroy their young within a day or two after birth. Female rats are, when well nourished, very solicitous for the welfare of their young, and among such there is practically no infant mortality. The other group will attempt to suckle their litters but allow them to die because of malnutrition.

It is a matter of great importance to have demonstrated that making the diet faulty with respect to protein, but only to an extent which does not

interfere with growth or with the maintenance of an apparent state of health in the adult, may profoundly affect the psychology of the animals in respect to so fundamental an attribute of the nervous system as the maternal instinct. Infanticidal tendencies in mothers in this series of experimental animals have been so common and so consistent that there can be no doubt that they had a dietary origin. We are now able to predict with assurance as the result of experience, that on certain diets mother rats will destroy their new-born young.

Perhaps as interesting as any of the results of this series of studies is the effect of faulty diet on the length of time during which the adult animals will maintain the full vigor of middle life, after their growth has been completed, on the experimental diet on which they are maintained throughout life. This may vary greatly. A well nourished rat may live as long as thirty-six months or, in a few instances, a little longer. By making the diet faulty in some degree with respect to the amount or quality of its proteins, we are able to make the span of life almost anything we desire. Rats can be made to grow at the optimal rate and to the full adult size, and appear to be in a satisfactory state of nutrition, yet begin rapidly to deteriorate as soon as growth is completed. Again, they may be made to preserve what appears from their external appearance the full vigor of middle life for a quarter, a third, a half or any other fraction of the extreme span of life which they are capable of living. When the diet is faulty they tend to grow old rapidly.

It is not possible within the limits of space available here to discuss in detail the many interesting observations on this series of experimental animals. This much, however, may be said in

the way of a general conclusion. Any diet which is derived in great measure from cereals, tubers, fleshy roots and muscle cuts of meat (ham, steak, roast) will never be satisfactory for the promotion of growth or for the maintenance of vigor and the preservation of the characteristics of youth.

CALCIUM AS A DIETARY FACTOR

The most important dietary factor concerned with human nutrition or animal production is that relating to the supply of calcium. Not that this element is any more important for nutrition than other indispensable factors, but there is much greater likelihood that the amount of calcium supplied by the food will be inadequate. One hundred grams of wheat contain 0.040 grams of calcium. Our experiments have established very definitely that the optimal concentration of this element for the nutrition of the rat is approximately 0.640 grams per hundred grams of food. This means that unmilled wheat contains but one-fifteenth the amount of calcium which the rat actually needs for optimal nutrition. The blood and other tissues of all mammals contain about the same concentration of this element, and there is much reason to believe that the calcium requirements of man expressed in the per cent of food, are about the same as those of the rat. There are but two classes of foods which are rich in calcium, viz., milk and the leafy vegetables. No combinations of cereals, legume seeds, tubers, fleshy roots, and meats and eggs will supply a sufficient amount of this element.

No combinations of cereal proteins, or of vegetable proteins from any sources, are likely to prove of very high biological value and, since this is true, any attempt to subsist on such a diet would be almost certain to prove a failure. A strictly vege-

tarian diet would be very deficient in calcium as well as contain proteins of relatively low value, unless it contained a much greater amount of leafy vegetables than are likely to be eaten. It would likewise be deficient in fat-soluble A, the anti-ophthalmic substance, unless the leaf moiety were so great as to be excessive for an alimentary tract of the omnivorous type. It would, as would any diet from any source, contain an inadequate amount of the antiscorbutic substance unless it contained some fresh, uncooked articles.

Such a diet as we are discussing would be greatly enhanced with respect to its proteins by the inclusion of meats of any type. If muscle cuts were taken, the supplementary value to the remainder of the diet would be essentially limited to enhancement of the proteins. If, however, glandular organs were employed, as liver, kidney or sweet-bread, the content of the diet in fat-soluble A would be markedly increased. In neither case, however, would there be any increase in the content of calcium as the result of the inclusion of meats.

I have repeatedly asserted, during the last few years, that the white bread and other cereal, muscle meat and potato type of diet which is so common in America and parts of Europe, is causing physical deterioration. No animal can grow satisfactorily on a food supply of this type, nor can one remain long in the possession of full vigor after growth has been attained. Only when such a food supply is supplemented with liberal amounts of milk or the leafy vegetables will it prove satisfactory.

DIETARY FACTORS IN MODERN PHYSICAL DETERIORATION

We are now in a position to understand the reason for the rapid increase

in tooth decay and in faulty skeletal development which has taken place during the past century, and which has been hitherto inexplicable. There has been a rapid and steady increase in the consumption of cereal products during the last century. The consumption of cereal grains in liberal amounts is an innovation in human experience, for cereals could never be cultivated on a large scale until the invention of modern plowing, reaping and threshing machinery. Grass has always been the most serious enemy of agriculture, and only effective implements could cope with it. This is the reason why rice, which developed for a considerable period on flooded land, was the earliest cereal to be widely cultivated.

Not only have we come to consume ever more and more cereal products, but the modern milling industry has furnished us with more and more milled cereal products, such as bolted flour, degerminated cornmeal and polished rice, which are very inferior to the unmilled cereal grains in their dietary properties in respect to several dietary factors. We have simultaneously reduced our consumption of dairy products and green vegetables from the amounts which were taken by people of a century or more ago in many regions of Europe and America where physical development was most satisfactory. These changes are sufficient to account for the deterioration which we are now witnessing. Carnivorous man, such as the Eskimo, the Indians of America, the Lapps and the pastoral tribes of Asia and Africa, are highly successful in their nutrition. The Oriental, who eats very liberally of leafy vegetables, bamboo sprouts and weeds which serve as pot herbs, is successful—for reasons which we can now easily explain. The people of Switzerland, Scandinavia, Ireland,

parts of Scotland, Iceland and the Hebrides are highly successful with their nutrition because of the large quantities of dairy products which they consume. In England, parts of Scotland and many places on the Continent, as well as in tens of thousands of homes in America, where the meat, bread and potato type of diet is the rule and where little milk or green vegetables are eaten, physical degeneration has resulted and is further in progress.

In the light of modern knowledge of nutrition this physical degeneration may be safely attributed to faults in the diet of the pregnant mother which prevent her from doing the best possible by her unborn baby. She tries to nurse the child on a diet which does not permit her to secrete milk of a satisfactory quality for the nutrition of the child. Before the child is many months old it is shifted to artificial feeding, in which milk is modified by one of the many methods recommended by physicians. These involve dilution and adjustment with sugar or cereal waters, and provide a food which fails to furnish the proper relations between certain mineral elements, especially calcium and phosphorus. Cereals are introduced as early as possible into the infant's diet under the mistaken idea that these are foods of a highly satisfactory sort. Actually, they are not so constituted as to promote growth at all, except as they are enhanced by the other constituents of the diet. It is under such conditions that rickets and related skeletal defects develop. The concomitants of rickets are flabby and weak musculature, tendency to faulty posture, distention of the intestine with gas and general malnutrition.

Rickets has been shown experimentally in the author's laboratory to be due to faulty diet, and it has been

conclusively demonstrated that three factors are especially concerned with its etiology. These are the calcium and phosphorus content, and the content of a certain vitamin, which is possibly identical with fat-soluble A. When there is an abnormal proportion between the calcium and phosphorus in the diet and a relative shortage of the organic factor mentioned, rickets will develop. The great frequency of the development of rickets in infants shows how frequently these errors in the diet are being realized in general experience.

THE TEETH

But the teeth are a part of the skeleton and their development is governed by the same laws that govern the growth of the bones. The diet must be nicely adjusted or they will undergo faulty development. The enamel is put on the teeth before they are erupted. It is not deposited simultaneously in a uniform layer over the tooth, but at certain centers of enamel formation. One of these is situated at the apex of each of the cusps of a molar and from these points the enamel spreads until the several areas meet in the sulci. Here they must form a perfect union if the tooth is to be long lived and free from decay. Actually, there are now common defects in the enamel and it is often not sufficiently dense and thick to form a satisfactory covering for the tooth. Furthermore, under faulty conditions of nutrition, the roots fail to develop as they should. We thus form teeth which are vulnerable because not normally developed. The developmental factor is the most important one from the standpoint of preventive dentistry. It is of the utmost importance that a good dental apparatus should be formed. Teeth

of optimal development possess their own defensive barriers, and can withstand abuse without undergoing destruction by caries.

The idea of mouth hygiene and early repair of the teeth has been overworked in recent years. The slogan that a clean tooth never decays is perhaps theoretically true, but it is an utter impossibility to keep the teeth in a condition of bacteriological cleanliness. Actually, therefore, this slogan is false and misleading. Any system of preventive dentistry which ignores the developmental factor has a fundamental weakness. The real basis of preventive dentistry is proper nutrition of the pregnant mother, and a better system of feeding infants and young children than is now in vogue. The formation of an effective and properly fortified set of teeth is largely a matter of right living during the first five or six years of life, for after a tooth has erupted its improvement is not possible, or is possible only to a very slight extent. The critical time is while the tooth is forming.

I have discussed at length, elsewhere,¹ the knowledge of nutrition which has been gained through animal experimentation, and also the results of an extensive study of the experience of man in different parts of the world with diets of different types. The results of these two lines of investigation correlate in a surprising fashion, and form convincing evidence that it is time that the sociologist and the economist as well as the medical man and the health worker, should awaken to the possibilities for human betterment which can be achieved through education in matters relating to nutrition.

¹ *The Newer Knowledge of Nutrition*. New York, 1921. 2nd. ed.

Mouth Hygiene and Child Welfare

By EDWARD T. HARTMAN

Secretary, The Child Federation, Philadelphia

THE problem of the mouth is to possess a mouth which is clean and which can function, as it is intended to function. A dirty mouth contaminates all food taken into the body. Pure food, at whatever cost of care and money in its production and preparation, becomes impure food when taken into the body through a filthy mouth. To function properly the mouth must be clean and there must be sound and usable teeth and the teeth must be used. They must be used to prepare food for digestion and they must be used, much used, on hard and chewable food to develop the teeth, the jaws, the face, the skull and the brain cavity.

The mouth problem is a part of the problem of health promotion. Mouth hygiene is one of the items of a health promotion program. Like other items, each in its proper field, the broad aim of mouth hygiene is to develop and maintain proper teeth. This includes the preparation of food for digestion by the proper use of the teeth. For food which is not properly prepared and digested, decays in the stomach and intestines, where are found the best possible conditions for quick decay—darkness, moisture, heat. If, in addition, the food is mixed in the mouth with pus from pyorrhea pockets, with bacteria from decayed teeth, from food previously left among the teeth and from diseased gums, it decays the more quickly.

While mouth hygiene is but one of the items of a health promotion program, it is a big and definite item, and it is tied up with several other problems, such as prenatal care, nutrition

and infections of the body. But it is not a panacea. It must be worked out in connection with other health promotion problems.

THE STATISTICS OF THE MOUTH

The statistics are well known and need not be covered in detail. It is enough to say that one may with difficulty find two good sets of teeth in each hundred children examined in our schools, including only the first five grades. If all grades are examined the proportion of good mouths will be less. In Stratford, Connecticut, five hundred and fifty children were examined and only one child was found to have teeth free from decay. And not only has each child one decayed tooth; he has, on the average, seven decayed teeth.

What is the meaning of this condition? Before the arrival of the civilized white man the Eskimos had no words for decayed teeth or toothache. They now have use for the words, just as we have. Tooth decay is largely unknown among the primitive peoples, such as in the north of Scotland, in Norway and Sweden, in the rural districts of Italy, and several similar areas. And the decay is attributed not to the power to read and write, not to the power to think, but to denaturized foods and to failure to use the power to think. Our overwhelming tooth trouble is due to foolish or ignorant parents and to the food manufacturers. It is due to the products and conditions of civilization, especially civilization's foods. Denaturized foods, haste, with its consequent faulty mastication, do not produce teeth.

MOUTH INFECTION AND HEALTH

Along with poor teeth, decayed teeth and dirty mouths comes a whole chain of evil consequences, induced diseases and related ills. Autointoxication, a quite respectable disease, is in some cases a fashionable name for a body full of decayed food. Rheumatism is in many cases the name given to local infections due to pyorrhea pockets. Malnutrition is often due to the fact that the teeth cannot prepare food for the digestive fluids. The after results of a poor mouth, results which are not commonly connected with the condition of the mouth, are now well known to the leaders of the dental and medical professions. These results are so extensive in their various ramifications that they are beginning to form a great specialty in dentistry and medicine. They complicate diagnosis, broaden the range of treatment required and greatly add to the burden of curative treatment. They involve not merely a study of possible break in the enamel of the teeth; rather, as Fones says: "Today we realize that dentistry must concentrate upon the soft tissues, the gums, the pericementum and the pulp, for these are the tissues chiefly involved in permitting the ingress of bacteria into the lymphatics and thus in the production of many systemic infections."

The trend of the times is toward a toothless age. But progress towards this condition need not continue. We know, in the main, the precedent causes of most of the bad conditions. We know at least enough to make it a truism that if we further progress towards a toothless age it is because we are at the same time progressing in senselessness. We know that we can give up some of our bad habits or continue to give up our teeth. The unfor-

tunate aspect of the matter just now is that our bad habits have a stronger hold on us than have our teeth. There is a job ahead for every promoter of a health program, for every citizen worthy of the name.

The present and future welfare of every child is inseparably tied up with the condition of his mouth and teeth. Upon this, frequently upon this alone, depends comfort, appearance, general health and efficiency of the individual. Malocclusion alone, induced by faulty care of the temporary teeth, malnutrition, thumb sucking, pacifiers, etc., ruins the appearance of the individual, causes mouth breathing, prevents mastication and develops a secondary chain of results which are ghastly and inexcusable. Thus follows a round of difficulties in part hinted at and too numerous to be even catalogued in a short article.

Mental retardation, induced by all the conditions above mentioned, is so terrific in its effects on the individual and in its costs, direct and secondary, to the child and the community, that one would think mere knowledge of the facts would prompt speedy action. Yet there is probably but one city in the country, Bridgeport, Connecticut, which has made a serious attempt at actually meeting the conditions.

THE SOLUTION—A PROGRAM

As in all matters of health promotion, the development of a program has come in backwards. Dental surgery, a means of patching up bad teeth to do as well as they may, has made great progress, nowhere more than in America. The developments of the past twenty years speak volumes for the ability and the earnestness of the leaders of the dental profession. And the work has been ably seconded by leaders in the medical profession.

But dental surgery is devoted to

cure. It does not and cannot, alone, promote good teeth. It should be in the nature of a supplementary activity to a program for promoting healthy mouths. There are less than fifty thousand dentists in the country. To pursue the course now mainly followed, using dentists only when the teeth are troublesome, would require the services of an army of perhaps three hundred thousand dentists and they would then be unable actually to get under the problem. We shall always need the dentist, far more than we now think we need him, but he will need help. With a right program the dentist could give the required attention to the sixth year molars, could treat decay in its early and painless stages and could function more effectively than we now permit.

The next item to develop was mouth hygiene. This is largely a preventive activity and its need is largely induced by failure in the fundamental work. Mouth hygiene is a development of the past ten years. In 1914 the first mouth hygienists were graduated. Their work, under the direction of Dr. Fones and of private dentists in various places, was so significant that the movement produced a complete revolution in dentistry. This change is only now in progress. Thirteen states have recognized it by making it legal for mouth hygienists to practice. Like modern dentistry, it is making rapid strides and will prove of almost unlimited value in the campaign for health promotion.

TOOTH BUILDING AND MAINTENANCE

Let us lay down as one of the fundamentals that right mouth conditions will be promoted most effectively by a program of tooth building and maintenance. Dental surgery is curative. Mouth hygiene is preventive, but it can easily be made constructive, that

is, by aiming directly at maintaining good teeth in a good condition. But the big item of the program, because the only one which can accomplish the task before us, is tooth building and maintenance. In this work there are three main items.

PRENATAL CARE, NUTRITION AND MOUTH HYGIENE

First comes prenatal care. This is important because the enamel of the temporary teeth and, to some degree, of the permanent teeth is formed in the prenatal period. This will be good enamel or poor enamel, depending upon the condition of the mother during the period of pregnancy. It was formerly considered normal for a mother to give up some of her teeth at the birth of a child. This was due to plain ignorance. The growing organism will take all it can get, at whatever sacrifice to the parent organism. But it is possible to rob the mother and still not supply the needs of the growing child. Prenatal care is therefore imperative to the welfare of the mother and child. Every child has a right to be born fit. No mother should suffer abnormal injury through giving birth to a child. Right conditions at birth go a long way in solving the problems of child welfare and promoting the interests of the individual.

Then comes the item of nutrition. Having started the teeth in the right way, the next thing is to keep them growing properly in every way until they are fully formed. This is largely a problem of nutrition. So nearly is it a problem of nutrition that if we were to solve the nutrition problem we should be a long way on the road to a solution of the tooth problem. But nutrition depends upon the condition of the teeth. Without good teeth the individual cannot prepare food for digestion. So here we have two in-

separable problems. To promote one and ignore the other, is to fail.

Free sugar and starch form the base of the tooth problem from the nutritional standpoint and on the negative side. Lactic acid, the destroyer of enamel, comes from sugar and from starch converted into dextrose. On the positive side, the development of the teeth depends upon a "well balanced diet, with special emphasis on the calcium content foods."

Mouth hygiene, which includes the prophylactic processes plus full instruction in regard to the care of the mouth, as well as instruction as to foods which will produce teeth and warning against foods which destroy teeth, is imperative in both the constructive and remedial campaigns and is, or should be, within itself both constructive and preventive. It forms the great bridge which will lead us from the present morass of difficulties to the solid ground of right living which will mean good teeth, first, last and between.

We shall probably never use enough of the foods which polish the teeth. So the hygienist must polish them, thus keeping them free from the bacteria plaques which start decay. The hygienist must remove the tartar or teach us to avoid, when someone finds what they are, the foods which produce it. And he must teach us, always teach us, till we reach that position where we individually feed ourselves and our children with the same care used in feeding cattle or in supplying automobiles with fuel and oil. We keep function in mind in every case except when feeding (and clothing) ourselves.

The profession of mouth hygiene offers a field of usefulness hardly sur-

passed among the professions. Its importance cannot be overstated. Its significance grows upon us from day to day as we study the situation in which we find ourselves and the possibilities of mouth hygiene as a remedy.

We have poor teeth and we know the cause. We know that to promote tooth health is cheaper and more effective than cure. We know that we will not be able to provide and maintain enough dentists to care for the problem by curative processes. There are those who insist that the tooth problem, as it now faces us, is more serious, responsible for more ills, than was liquor before prohibition. We also know that the tooth problem is tied up with our food habits and that food habits are as difficult to change as other habits. They are perhaps more difficult, for, while it is a besetting crime in the eyes of many to poison the body with whiskey, it is not so considered when we fill the stomach with food doomed only to decay and thus to ruin health. And we have to eat.

Let us keep in mind, therefore, the seriousness of the problem and the need for action by parents, teachers, dentists, hygienists, doctors, the press; by everyone who forms a contact and who would claim to influence people. For if the influence springing from a contact is not good, it is nothing or it is bad. Who is going to claim the right of a contact, which is also an opportunity, when it produces only harm?

Mouth hygiene deals with the care and use of the mouth and the teeth. Its progress during ten years gives it a distinct and permanent field. To those who will deal with mouth hygiene in its broader aspects there is no more useful field for work.

Some Aspects of the Mental Hygiene of the Child

By LEONARD BLUMGART, M.D.

New York City

THE physical hygiene of the child has been studied and applied with much success by mothers and nurses for the last two or three decades. What modern mother would think of bringing up her child without Holt, Kerley or Griffiths at her right hand and a scale and sterilizer at her left. "Of making of books there is no end," and the number about the care of the body of the child make of the Biblical Jew who said it not only a sage but a prophet.

After the child has from birth been weighed and measured, accurately and regularly, fed on a scientifically prepared diet, bathed, exercised and given an open air sleeping porch, there often is vast disappointment that its behavior is not the fine flowering of so much conscientious effort.

If care and attention to the child's bodily needs were all that were necessary, then wealthy and intelligent parents should bring forth perfect children. Airy nurseries, big gardens, visits to the country or seaside, trained baby nurses, governesses and specialists, every advantage that money can buy, do not always achieve success. The child is not happy; its sleep is restless; it is irritable and moody; it has a bad disposition; it does not "behave," ad infinitum.

The problem of physical care has been practically worked out for the average normal child. The rapid growth in variety and extent of function, both intrinsic and extrinsic, that accompanies the rapid growth of the body is often lost sight of in the intense interest in the purely physical aspect of the child's development.

THE NEWER INTEREST IN BEHAVIOR

Interest today is beginning to be directed toward the child's behavior and the strength of that interest is manifested by the growing number of men and women who are reading and studying human behavior or psychology. From this viewpoint the child must be looked upon as a dynamic engine whose behavior can theoretically be divided into two fields, that of its interaction with its environment and that of its interaction within itself. The interaction with the environment makes up the larger part of the study of psychology; the interaction within itself is the field of hygiene and physiology and, as has been noted, is fairly well covered.

Naturally, these fields are not separate and the division made is purely for practical purposes. In reality every internal interaction has its influence on and takes part in an environmental interaction. The child's organism is so sensitive that fatigue and irritability are produced by causes which to us may appear extraordinarily trivial. The happy hours of childhood are often a myth. To our relatively crude adult minds the child's life is made up of bathing, dressing, walking, eating, playing and sleeping. It is not in these activities that the source of the child's unhappiness is usually to be found. It lies in the behavior of the parents or nurse, their relationship to the child, their actions and words. It is the tone of their voices, the very thoughts that pass through their minds and which show themselves so plainly to the sensitive mind of the child, that bring about its bad behavior.

Compare the behavior, happy or otherwise, of the child with adults, to that of the child at work making mud pies, block houses, a dam in a gutter. Here you can observe persistence, patience, application, complete abandon, utter lack of consciousness of self or anything but the matter in hand. Creative intelligence is at work here with new things being born into the world, and new functions and qualities being built up in the child.

RESPONSIBILITY OF PARENTS AND TEACHERS

It has been possible to curb in a child of three and one-half years of age, insomnia, night terrors, irritability, recurrent attacks of nausea, vomiting and prostration by simply changing a ruthless disciplinarian for a motherly nurse. In another case, an eight year old girl ceased having insomnia and intestinal upsets when her parents were asked to transfer the acrimonious and bitter discussions of their differences to the privacy of their bed chamber and appear as well bred in the presence of their daughter as they would before friends. Conflicts between parents and between parent and child are always disastrous and harmful to the child whatever the outcome, be it victory or defeat. Victory in the conflict with authority gives the child an undue sense of power; defeat, an undue sense of helplessness. Both the exaggerated power and helplessness are memories which will impede the child's activities in later life.

Modern psychology, while it makes understandable much in the behavior of children that was formerly unknown, places a greater responsibility upon the child's parents and teachers and offers a greater opportunity for conscious and intelligent direction of its education. Given a healthy body, the conduct of a child is largely the

result of the success or failure of its parents or nurses as social individuals. Given a healthy child, crying and whining, bad tempers, moodiness at meals, undue shyness, timidity or fear, may all be reactions of the child in response to the behavior of its human environment. In this situation lie the seeds from which nervous disorders of the future may very well spring forth. The mental hygiene of the child is inextricably bound up with the mental hygiene of the adult, for children will always have to be brought up by adults. Dr. C. Mac Fie Campbell, Professor of Psychiatry at Harvard University Medical School, rightly says, "To understand the child the influences of the home must be studied."¹

In all of this, one must not underestimate the physical factors but seek at all times to rule them out as the cause for malbehavior. It is unnecessary to emphasize this. More often a physical factor is sought for too long. Failure to examine a child for the presence of physical defects or disease is inexcusable. In time it will be just as inexcusable to neglect the psychological factors.

HEREDITARY DISPOSITION OF THE CHILD

Furthermore, the hereditary disposition of the child must be taken into account. Children vary tremendously in their temperament. From the moment of birth observant mothers note well marked variations in conduct and behavior in their children. One child is mild, calm, easily pleased; another, restless, irritable, demanding that his environment be "just so." Babies have unconsciously a standard of comparison that makes this world a difficult place for them whatever their ner-

¹"A City School District and Its Subnormal Children"—*Mental Hygiene*, Vol. 2, p. 237.

vous organization. The life within the womb can be accurately described as perfect. It is thought by some that the organic memories of this period are the stuff from which all our ideas of Paradise and Heaven are made.

At birth, loud sounds and bright lights, new skin sensations of touch and pressure, cold and heat, dryness and moisture, pleasure and pain, together with the internal sensation of hunger for air and food, form a continuous stream of stimuli. Babies of "nervous inheritance" react to these quite differently from those of relatively dull nervous organization. Professor John B. Watson's experiments, which show that sudden loud noises, jars and marked and sudden changes in position are fear-producing stimuli, suggest the advisability of protecting children who have inherited nervous dispositions from such stimuli, at least for their first eighteen months. These experiments of Professor Watson's² on infants from birth to over two hundred days of age, indicate to what extent revision of our old conception of the emotional life of the child has now become necessary. For example, purring black cats, pigeons rattling about in a paper bag, rabbits and guinea pigs crawling over and held before the baby as experiments, all failed to produce the element of fear. They aroused interest or caused but slight attention. The same result, viz., lack of fear, was noted when babies were placed in a dark room, and a faint light turned on, presenting black cats, pigeons and rabbits in active relationship to the babies. The sight of camels, Shetland ponies, zebras, bears, parrots, monkeys, ostriches, some coming within two or three inches of the babies, also produced no fear.

That children often are fearful of animals is beyond question, but Dr. Watson believes that the fear in such instances is usually traceable to fear-provoking actions on the part of the animal. We must, therefore, revise our ideas of the "naturalness" of animals as fear-producing stimuli. Again, fear may be associated with the dark or fire, the fear-producing stimuli having first been experienced in the dark or near the fire.

That it is a particular kind of action that produces fear is often illustrated from the observations of parents. In one instance, a mother discovered that her boy, after he had been within twenty-five feet of a passing excursion steamer from which emanated a sudden shriek, thereafter manifested fear whenever the fire engines passed his home, although prior to that time he had shown no fear with the passing of engines.

The task of mothers is by no means equal. Some children seem to be of such elastic fibre that quite serious faults in training sometimes result in little permanent damage. Others, especially the high strung and sensitive types of children, require the most delicate of handling and if faulty methods are employed, the damage at times seems almost irreparable.

When we know that the child has inherited a peculiarly nervous disposition, wisdom in its management is as essential as air. The nervous, high strung temperaments are often beings of great potential powers. It is your wayward, intractable, over-responsive child who often has the greatest potentialities for achievement. By keeping this hereditary factor in mind we avoid the unthinking criticism that is so often applied to mothers when their children misbehave. "Now if I were bringing up that child," says the proud parent of a placid offspring, "she wouldn't be so nervous." Just

² *Psychology from the Standpoint of a Behaviorist* by Dr. John B. Watson, published by Lippincott Co.

because the child is more sensitive, more responsive than the average, the task of teaching it to adapt itself to the world, to be at home on the earth in a way that shall be satisfactory to it and its environment, means an expenditure of time and genuine understanding of the problem.

DISCIPLINE AND EDUCATION AS BEHAVIOR PROBLEMS

Two of the most difficult of the behavior problems in the care of children are those of discipline and education. What are discipline and education? Are they blind obedience and slavish imitation? Does our education and discipline of children tend toward the development of their powers or does it tend in the direction of our own ease and comfort? If the former, we must assist the child by allowing it free play for its attempts to experience, *i.e.*, to know and to use its environment. To state in words the principles and objects of education and discipline, is simple. To apply them, is a task that is engaging the attention of conscience-stricken parents and educators.

There is not a month in the year that the educational system in vogue, both at home, at school and at large, is not either proclaimed or confessed a failure. The rapidly growing number of experimental schools, the eager attention and interest received by every new idea or system, all proclaim the growing unrest at the inadequacy of our educational institutions. Dallas Lore Sharp in the *Atlantic Monthly* for July, 1921, voices the bitter cry of the parent and educator at the failure of our education:

Books make a full man; it is life and nature that give him authority. But life and nature are little reckoned with in formal education. . . . Human nature is unique and not to be handled by machine. *It is active, a doing nature*³ fit for unfinished

earth, not heaven, the earth partner and co-creator in God's slowly shaping world. . . . Education is too far removed from the simple, the original, from life, and nature. . . . A poet is stillborn in Boston every day—killed by toys in place of the tools that make them, by books in place of the life they tell of, by schools, museums, theatres and stores where things are pieced and ordered, filmed, collected, canned and labelled in place of a whole world of whole things. . . . The educating process is started wrong and started too early. It should start with work. . . . Every son of God needs, if not a world to create, an earth to subdue. . . . Instead of allowing him to work we teach him to be amused. . . . Nature should be the teacher of us all.

Is not this in reality a protest against education by ideas and a plea for an education by action? The change is coming rapidly. Is there any university worthy of the name that would teach chemistry, engineering, physics, physiology from books? Are they not taught by action in the laboratory with books as tools of lesser importance. Is not that but an extension of the method by which modern educators are teaching the child?

The fundamental fact in such experimental educational systems as Montessori's and Marietta Johnson's is that the child is educated by doing and not by ideas. The first movements of a child are carried out in response to external stimuli of light rays or sound waves or as the result of contact with external objects, or they are restless movements due to inner discomfort such as hunger. At first there is no knowledge of distance and its reach is but poorly adjusted to that for which it reaches. Gradually it learns to become skillful and once it reaches a point of precision, one can well imagine that life becomes for it a daily discovery of innumerable new objects and functions, all having innumerable new

³ Italics my own.

graduations and compounds of the sensations of weight and touch, of heat and cold, of distance and color, of comfort and discomfort, of pain and pleasure, felt not only by the skin of its hands, but also by lips and tongue, by eyes and ears. The child is not content with touching and manipulating; it must also taste and once it begins to walk, its universe spreads out increasingly before it, and it grabs and touches, it pulls and throws everything within reach in order to get the joy of experiencing the world in which it lives.

Its body interacting upon environment compels the child with irresistible force to action and it is foolish, any more, it is dangerous to attempt to stop that interaction or repress it. No doubt such a condition makes for a trying time on the part of its elders. The only wise course is to recognize it as a time of many trials and help the child by giving it freedom of motion in an environment in which dangerous or destructive agencies are out of reach—out of reach solely because the child is not capable of handling them. One should make the criterion of the things a child can play with, not the power of objects to inflict pain or damage upon it, but rather the common sense limits imposed by the child's ability to handle objects skillfully and in accordance with their uses.

The skill and delicacy of children who have not been impeded by unwise repression in their handling of themselves and the objects around them, is extraordinary. They will pick out an object, manipulate it and replace it deliberately and carefully. Madame Montessori and those who have used her methods in the education of very young children, bring enthusiastic and convincing evidence of the ability of children from two years of age onward skillfully and accurately to perform

many actions formerly thought to be beyond their powers. If this method is followed, the child, before it is two years old, should become perfectly capable of conducting itself correctly and with perfect freedom in an ordinary environment. It is only by knowing the properties of one's environment that one can learn to react properly to it. The possession of such a fund of useful reactions to one's environment can be called good discipline or, equally well, self-control.

If the parents or nurse are of strong character so that the child is dominated from the moment of its birth, it may learn to obey but the price will be its independence of spirit. Either a colorless, neutral individual results or there is a grave possibility that a neurosis will make up a part of the personality.

Ruthless and severe punishments for disobedience in the earlier years are a most prolific source of lying in the child. I have seen a number of such cases in which the despotic authority of the parent was exercised from birth and the result was not happy in any respect. A more common occurrence is the remorseless exercise of authority at odd moments. How often does a child disobey and, as it is said, "get away with it" only to find on a third or thirty-third time that, due to chance mishap in mother's life or father's business, he is ruthlessly and severely punished. Can one imagine anything more confusing to a child's mind than such capricious behavior on the part of his parents or nurses, or to what extent such punishments may rankle and sting with their residue of a sense of injustice. And if perchance the child learns that he has a weapon by which he can successfully counter attack and make authority yield to him, from that day his future is black indeed. He then becomes the ruler of the house-

hold; his slightest whim has to be obeyed and his likes and dislikes catered to on penalty of an outburst. So we see that the tight grasp of overpowering authority leads to the effort to break away, and failing, must produce weaklings and failures. This realization no doubt, is a bitter pill to old-fashioned parents. In fact, few who ought to swallow it,—will!

True discipline, that is, ability to act properly in a situation, is not acquired by an outside force acting as a rubber stamp. Genuine discipline is an organic function that grows out of interest and out of actions performed in building up interests and habits. Every interest in its development yields discipline; without interest there is no true learning. There may be word formulas, there too often are, but these are actively and purposely forgotten as soon as they have served their purpose, as in the case of passing an examination or averting the displeasure of parent or nurse.

Ruthless discipline as a method of inculcating ideals has been carried out by savage tribes as well as by imperial Germany. The result in the lower savages has been vividly described by the late Dr. C. A. Mercier,⁴ the great English psychiatrist. Their lives, he says, "are lived in fear, in restraint, in submission, in suffering, subject to galling, unreasoning, unnecessary, arbitrary prohibitions and taboos and to customary duties equally galling, unreasoning, unnecessary and arbitrary." How often do we hear our elders proclaim in tones of reverent praise the discipline that must necessarily have forced them to lead their lives—"in fear, in restraint, in submission, etc."

On the other hand, extreme tenderness is equally bad. The indulgent and protective parent becomes the uncon-

scious ideal of the kind of environment the individual henceforth seeks. Dr. Walter F. Dearborn,⁵ Professor of Education at Harvard University, says: "Too often the parent stands between the child and the realities of life. The child is shielded from life and protected from the consequences of his act. His life has become 'shut in' because the doors to the world of realities have been closed by too fond and protecting parents."

Gentleness is not taught a child by beating him. His voice does not become well modulated by shouting at him. All those qualities we would have him possess cannot be given him unless we ourselves possess them. "To train the child, the parent has to train himself or herself; true education must involve the parent much as we dislike to think that our education is not completed," says Dr. C. Mac Fie Campbell.⁶

That there is a new era at hand in which the customs and traditions of child raising will be subject to scientific examination is undisputed. As an integral part of such a program, the mental hygiene of the child will be the unescapable responsibility of its parents or guardians. The child today is too frequently brought up in a haphazard, unconscious way. The results achieved in the past were obtained in a blind, instinctive manner. A proper understanding, however, will know that all forms of behavior develop from the endeavor of the organism to get into relation with the environment; it will know that behavior is always some driving force of nature finding its way into, through and out of us, striving as it were to get its effect.

⁴ "Facts of Mental Hygiene for Teachers"—*Mental Hygiene*, Vol. 3, p. 14.

⁵ "Nervous Children and Their Training"—Dr. C. Mac Fie Campbell—*Mental Hygiene*—Vol. 3, p. 19.

⁶ *The Principles of Rational Education*, by Dr. C. A. Mercier.

Childhood: The Golden Period for Mental Hygiene¹

By WILLIAM A. WHITE, M.D.

Superintendent, St. Elizabeth's Hospital, Washington, D. C.

THE outstanding fact that present-day psychiatry emphasizes is that mental illness is a type of reaction of the individual to his problems of adjustment which is conditioned by two factors—the nature of those problems and the character equipment with which they are met.

The first of these factors, the nature of the problems, we can dismiss with the general statement that any individual, theoretically at least, may break under the stresses of adjustment if only the stresses are sufficiently great. For any material, be it physical or mental, no matter how strong its make-up, a force may be conceived great enough to break it.

The second of these factors, the character equipment, is the important one for our consideration in this connection, for mental hygiene is calculated to reinforce the weak points in character while it may often be at a loss to change the nature of the problems which present themselves for solution, although both factors are proper subjects for its consideration.

A generation ago, psychiatry approached the various types of maladjustment from a purely descriptive standpoint, classifying the several disease pictures solely upon an enumeration of the symptoms. This was the period of studying mental illness in cross section. Later, under the influence of the Kraepelinian teaching, mental illnesses were classified upon the basis of their course and outcome. This was the period of studying mental illnesses in longitudinal section. Today it is generally accepted that mental

illnesses are only reactions of the individual as a whole. Pathological reactions, then, are only a portion of the total behavior of the individual and can be understood only after a sufficient analysis of the personality make-up has made clear how the symptoms are the outcome of a certain character equipment brought to bear upon certain problems of adjustment. This is the period of behavioristic psychology and interpretative psychiatry.

Mental illnesses, defects of adjustment at the psychological level, are therefore dependent upon defects in the personality make-up, and as this personality make-up is what it is as a result of its development from infancy onward, it follows that the foundation of those defects which later issue in mental illness are to be found in the past history of that development.

ORIGIN OF CHARACTER TRAITS

The preceding is a somewhat abstract statement of what is found, as a matter of fact, in every psychosis as it passes in review in our clinical work. A study of the individual patient always discloses elements in the character make-up which have made for maladjustment over a period of years until finally, owing to some acute disaster or merely to the accumulation of stresses, the breaks or, in individuals more seriously burdened, the defects have conditioned a series of pathological symptoms which have resulted in marked and more or less continuous inefficiency. In other words, mental illnesses are found to be the outward and evident signs of intra-psyche difficulties—conflicts we call them—which conflicts in turn are found to be dependent upon

¹ Reprinted from *Mental Hygiene*, Vol. IV, No. 2, pp. 257-267.

traits of character that have their origins in the childhood of the individual. The capability of the individual for efficient adjustment becomes progressively weakened much after the analogy of two lines that start at a given point and pursue diverging courses. Finally they get so far apart that no bridging of the distance is possible; each pursues its own course independent of the other, and we have the symptoms, for example, of a split personality.

It is natural that character defects should first have attracted attention and been studied in those conditions in which the defects have produced gross and easily observable symptoms. A study of these gross defects of adjustment has shown, however, that the important etiological factors are not nearly as obvious as they were originally supposed to be, but on the contrary they are constituted of subtle defects which have been, often for long periods, quite successfully hidden from view.

The particular trait of character with which the individual has been struggling all his life—suspicion, cruelty, jealousy, timidity, curiosity, overconsciousness, etc.—the trait about which his difficulties arrange themselves, will be found on analysis to have been unfortunately conditioned early in life as a result of the influences exerted by the various members of the family or their surrogates. There is as yet no adequate appreciation of the continuity with which we express our effective states in our postural attitudes, our facial expressions, our voices, mannerisms, remarks, opinions, interests, aversions, and how subtly, half-consciously, often quite unconsciously, we read these signs in those about us and are correspondingly influenced. This personal world we live in is “not a world of formal thought

only, but more a world of feeling, and moreover a sentience so exquisitely fine and fluent as many times to be scarce conscious of itself and quite unconscious of its causal antecedents.”² The child in the family is one part of an organism which is highly responsive to all that goes on in that organism. The influences which thus reach the child find it peculiarly plastic, much more so than later in life when the main character traits have become firmly established, structuralized.

All of this points quite unequivocally to the period of childhood as the golden period for putting into effect the teachings of mental hygiene. It is the period *par excellence* for prophylaxis and therefore the period, above all others, which must be studied if psychiatry is ever to develop an effective program of prevention.

These statements will, I think, be pretty generally agreed to, but in this connection I wish to refer to certain tendencies of thinking which I believe have operated against this enlarged conception of the importance of the personality. I refer particularly to the thinking which has been dominated by the germ-plasm theory of heredity and certain derivatives from this theory which have tended to the conclusion that practically all of our characteristics, mental as well as physical, are handed down to us by our ancestors and are something, therefore, which we can do very little about. The theory of the non-inheritance of acquired characters and the further theory that for every last trait there is a germ-plasm determiner has introduced a fatalistic element into our thinking which has made for a therapeutic nihilism by turning attention away from a consideration of the possibilities of ef-

² Maudsley, Henry. *Organic to Human, Psychological and Sociological*. London: Macmillan and Company, 1916.

fectively modifying the fundamental elements of the character make-up. In this connection Ritter³ very aptly says that the germ-plasm dogma is "chargeable with the grave offense of having added its weight to a conception of human life the overcoming of which has been consciously or unconsciously man's aim throughout the whole vast drama of his hard, slow progress from lower to higher levels of civilization—the conception that his life is the result of forces against which his aspirations and efforts are impotent."

Even allowing that certain fundamental traits are inherited, that does not mean that nothing is to be accomplished in an effort to utilize those traits to better advantage. A congenital deaf mute does not have to give up all effort to communicate with his fellows just because he cannot do it in the usual way. A person may be from early childhood intensely curious. That does not mean that he must always use his curiosity in a socially offensive way. With proper opportunity and guidance, he may learn to use this trait to better and better advantage and may become a scientist utilizing his curiosity in searching out the secrets of nature rather than the secrets of his neighbors.

Apart from such considerations, however, there is much evidence that the theory of the continuity of the germ plasm and the non-inheritance of acquired characters, in fact the whole subject of heredity, will have to be materially modified, particularly as it relates to those mental traits that we are accustomed to observe in our fellows and our patients. Not only are certain biologists beginning to think of the germ plasm as being a part of the organism as a whole rather than as a

substance which is handed on from parents to offspring in unmodified form, but there is much evidence that mental traits, particularly those which later on make for defects of adjustment, precisely because these have attracted most attention, are developed in response to certain facts in the environment. For example, it is as logical to suppose that a son may develop traits like his father because he seeks to emulate him as it is to suppose that these traits were handed down to him through the medium of specific determiners in the germ plasm.⁴

If it is true that defects in the character make-up can be explained as originating in traits which were acquired in early childhood as reactions to certain factors in the child's environment, then the way is opened for an attempt to prevent such undesirable traits by an understanding of the child and a modification or elimination of those environmental factors which produce such results. For example, we all know many persons who are afraid of lightning, yet Watson tells us that in all the babies he has worked with he has never seen a reaction of fear to sudden flashes of light.⁵

If the fatalistic ways of thinking engendered by the theories of heredity can be put aside, then we find another reason for considering that the period of childhood offers the golden opportunity for mental hygiene and for realizing that this is the period upon which

⁴ See discussion of heredity in my *Mental Hygiene of Childhood*. Boston: Little, Brown and Company, 1919.

⁵ On the other hand, he tells us that loud noises will produce the reaction of fear in very young children. As the lightning is usually followed by thunder, the flash itself is soon reacted to by fear on the principle of the conditioned reflex. John B. Watson: *Practical and Theoretical Problems in Instinct and Habits in Suggestions of Modern Science Concerning Education*. New York: The Macmillan Company, 1918.

³ Ritter, W. E. *The Unity of the Organism or the Organismal Conception of Life*. Boston: Richard G. Badger, 1919.

effort must finally be centered in the development of a program of prevention.

PROGRAM OF PREVENTION

What are the points of attack for the development of such a program?

First, there must be a real understanding and development of child psychology. This development must be along the lines of behaviorism, a study of what the child is trying to do in terms of the child psyche. Here, as elsewhere in dealing with children, the tendency has been to think of the child as if it were a small adult and to project upon it those types of explanation which we as adults have found satisfying in our own personal experience. A behavioristic child psychology must get away from this tendency and get at the original data from first-hand observation. Such a study of the development of types of reaction, a study of the primitive instincts and their unfolding in the more complex reactions as development progresses, is of the first importance.

Second, an understanding of the nature of the child's relations to its environment, particularly its personal environment and specifically to the members of the family, is also essential. Its relation to the family situation begins from the moment of birth, and from the symptoms that later develop in the psychoses we have come to learn how important those relations are for conditioning the later reactions for better or for worse. The fact has too long escaped notice that the family situation contains within itself certain elements of a disruptive nature.⁶ It is as essential that the child should ultimately escape from its bondage to the family as it is that it should, during a certain period, be a part of that family

and more or less subject to its direction. The complex interplay of these attractions and repulsions needs to be more fully studied as they express themselves in the symbolic mosaic at the psychological level.

And thirdly, a full understanding of all these matters must reach their application in education. Here again the effort has too often been to project upon the child something which we as adults may think desirable rather than to understand the equipment of the child and then try to develop that equipment in the best possible way. Education has been largely empirical and too much confined to teaching; it needs to be developed as a scheme for assisting and guiding the developing personality, based upon a real understanding of the principles involved and the equipment.

And finally, inasmuch as it cannot be expected that the child is going to acquire all this information and then apply it to itself, it is essential to develop some means whereby such information can be translated into effectiveness. The child is so intimate and so all-pervading an element in our social structure that any organized effort to influence it profoundly in its development must needs touch every part of that structure. The obviously more important points of attack, however, are the home and the school, of which places probably the home offers the least encouragement. The relations between parents and children are governed, for the most part, by crude instinct and it would hardly seem that we have either organized knowledge in a sufficiently practical form or means at our disposal to alter this situation materially or even to interfere with it on a large scale, except in a superficial way, with anything like a sure touch. To be sure, much can be done by the trained social worker, but this is usually in

⁶ For a discussion of these elements, see my *Mental Hygiene of Childhood*.

cases where trouble already exists, and even such approaches must come largely through the schools. That this is so is perhaps unfortunate, for there are of necessity many problems that cannot be touched in this way except perchance through the family physician, who should become more and more a reliable source of information, advice, and strength as the teaching of psychiatry and kindred subjects broadens out in the medical schools.

Take, for example, the problem of the unwelcome child—the impregnation which was accidental and not desired, the months of childbearing endured without joy, the pains of parturition that are borne in bitterness, and finally the child, to be the recipient of all this accumulated feeling of resentment.⁷ “What is the later story of such a life?” “How could it be modified to advantage?” are the immediate questions, but perhaps of greater significance is the query how the problem of the unwelcome child relates itself to one of the burning questions of the day—birth control and the use of contraceptive measures. Man’s anti-pathetic tendencies, as well as his creative purposes, are sublimated and refined in the course of cultural evolution. The viable child is no longer plunged head down in a vase of water—the germ cells are not permitted in conjunction.

The school seems, therefore, to be the most practical place to work for

results, although of course a great deal of knowledge must be acquired about the child before it is of school age. Work of this character we are trying to plan in Washington in connection with a private charity which ministers to the infant, helping the mother during her pregnancy and the child for the first six years. Arrived at the school, however, the teacher becomes the surrogate for the parent and perhaps in many ways, not only by education, but because of emotional detachment, is better calculated to be of real service than the parent. If the teachers, with the machinery of the schools, are going to be of real value, it will mean that the education in the normal school will have to be broadened, the final result of which will be somewhat older, more mature, better teachers, better paid.

CORRELATION OF CHILDHOOD AND ADULT DELINQUENCY

All our approaches to the understanding of defective psychological adjustments point indubitably to childhood as the period when things first go wrong, and the indication is therefore clear that this is the period which must be studied and modified to prevent the failures of later life. A great mass of evidence has been accumulated which goes to show that serious breaks in adjustment do not ordinarily occur without the coöperation of some lack of balance in the personality make-up; that they are rarely to be satisfactorily accounted for by the influence of extraneous circumstances alone. This evidence has been accumulated from the study of actual breaks as we see them in our patients—breaks which we have come to look at only as end results.

The studies which have been made of delinquents show this very well indeed—for example, the young man who has finally come to a long-term

⁷ These remarks are not intended to apply to phenomena usually considered under the designation “maternal impressions.” I am referring only to the attitude of the mother toward a child that was not desired. Such an attitude conditions a feeling of inferiority which may be a serious handicap throughout life. A similar situation is produced when there are several children one of which is a favorite of the parents. In such a relationship the child feels keenly his inferiority in the family situation, as does the unwelcome child.

sentence in prison will almost invariably show, if a careful survey of his past life is made, a long series of conduct anomalies which make the final outcome not only understandable, but often quite inevitable. I have in mind a recent case that came under my observation. A negro ran amuck, broke into several dwellings, and in one shot and killed a young woman. He was convicted of murder in the first degree and sentenced to be hanged. A behavioristic survey of this man disclosed the fact that he had shown traits of lack of control, impulsive and irresponsible conduct from his early youth, that he early began to drink and to take drugs, that he had been arrested and served sentences upon many occasions for both major and minor offenses, that there was all through his career a tendency to indulge in acts of violence and acts that were calculated to jeopardize the safety and the lives of others. The final homicide was the logical outcome of such a career, and at this late date execution seems rather a confession of impotence in dealing with this anti-social problem. No really intelligent plan had ever been brought to bear upon the problem he presented, but he was allowed to pursue his course to its logical outcome; whereupon society washed its hands of him finally and for all time. From the standpoint of responsibility, it might well be questioned which was the more responsible—the society that permitted all this or the defective youth who went his way.

One of the most important issues in mental hygiene, then, as I see it, is to correlate the sick adult with the knowledge we have that his illness is traceable in its beginnings to his early life. I have already indicated that this must be done by a more developed knowledge of the psychology of childhood, which is reflected in the home, in the

school, and in the principles and methods of education. While all of this is true, we need not to lose sight of the fact that much work which is at present being carried on involves mental hygiene by implications, some very direct. Such work as the Child Bureau is doing in attempting to determine the minimum requirements of food, clothing, wages, etc., is obviously important. We must first have a live child if we are to have any problem at all. Efforts to improve the environment, even with reference to such obvious features as food, clothes, and ordinary sanitation, however, are not lacking in their general effect upon the mind of the developing child.

Recent observations in the devastated countries of Europe have shown how quickly destitution, which takes all the joy out of life, is reflected in the mental make-up of the children. Here also come in such problems as the care of the pregnant woman, child labor, sex education, school sanitation, and more specifically the problems of the atypical child and juvenile delinquency, all of which can be better dealt with in proportion to our increased knowledge of child psychology, while such social problems as marriage and divorce, and, as already indicated, birth control, have very direct bearings.

All of these several factors will be seen to have their bearings when it is realized that the child is not a finished product, but the result of influences which play upon it from all these sources. It is a product of the past through heredity, of the innumerable elements, largely personal, of its environment, of its instincts as they work out in relation to that environment, of social and family traditions, and of the social standards of its time and place, and all of the various approaches indicated can be made more effective in the light of such knowledge. I am minded

at this point to compare the broad behavioristic program that I have indicated with the restricted scheme that is spanned only too often by the Binet-Simon scale. This scale, as devised by its originators, may be a very valuable tool in the hands of a skilled observer, but as the "be all and end all" of child psychology it may become quite as vicious in its results as the fatalism inspired by the false theories of heredity I have already mentioned.

And finally, inasmuch as many of the breaks, perhaps most of them, occur in the adolescent period or the period of early adulthood, it would, to my mind, be of inestimable value if some help could be systematically extended to the youth when, if he has not as yet broken, the symptoms of final disaster are quite apt to be discoverable. This might easily be done while he is still in school or college, if there could be connected with each such institution an adviser skilled in matters psychological and sympathetic and understanding of the problems of the young. This is a matter to which Dr. Paton has called special attention. I feel sure that such an adviser, connected with our large universities, would soon establish a large and useful clinic to which a great number of the student body would resort for advice and assistance in dealing with their life problems as they are beginning to unfold at this most critical period of life. It is of the utmost necessity that not only should our schools and colleges be equipped to offer instruction in any branch of learning desired, but that the individual should be consulted as to his equipment, his personal tendencies and desires, his difficulties and short-

comings, as well as his special aptitudes and opportunities. Unless this is done, the big educational machines will go on grinding out their regular proportion of failures. When it is done, those failures can be minimized and it may be found that not a few may profitably be turned away from a higher education to a life of greater usefulness in some other direction.

This is the sort of effort that is calculated to adjust the educational machine to the needs of the individual. Today that machine offers a fixed structure into which the individual is fed, to come out well or ill in proportion to his capacity to meet the requirements. The means I suggest would have the effect of helping to adjust the educational opportunities to the needs of the individual and would be a movement towards individualizing the student just as we have learned in psychiatry that any material advances in therapeutic efficiency must come along with a further individualizing of our patients.

These are some of the directions in which my thought is led by a consideration of the mental hygiene of childhood. If we are to produce a better race of adults, we must be able to control the influences which go to mold the adult character. A practical program in this field seems to me to be possible, and to offer a decidedly more workable scheme than an effort to go back of the returns with the eugenist and control the material. The more we know of what can be accomplished with the material given us, the better position we shall be in to undertake the control of what that material shall be.

Mental Hygiene Problems of Normal Adolescence

By JESSIE TAFT, PH.D.

Director, Child Study Department, Children's Bureau and Children's Aid Society of Philadelphia

"**N**ORMAL Adolescence" is a combination of terms which may perhaps be considered contradictory. If by normal one means average and, at the same time, implies painless adolescence or adolescence without conflict, then certainly there is a contradiction. For the adolescence which occurs without stress and strain is too unusual to be called normal and if such were the usual thing, it would offer no problems of mental hygiene. What we are obliged to mean, therefore, are the mental hygiene problems that arise in practically all ordinary lives at adolescence, disregarding those extremes of mal-adjustment which seem to point towards serious mental breakdown.

If one thinks of human life as the continuous struggle of a segmental organism so to organize its various needs and interests with relation to a social and physical environment that it may go forward successfully, satisfying itself and winning social approval at the same time; if one conceives of life as the effort to strike a balance between a dynamic safety, attained by courageous intelligent action, and a static safety, which means regression and avoidance of action, and to substitute as far as intelligence permits, expression for repression, independence for dependence, objective for subjective, and concrete interests for dreams—then adolescence inevitably presents a crisis, a place where the struggle must necessarily be more aggressive and effortful if it is to result advantageously for the organism.

IDEAL ADJUSTMENT

The ideal of adjustment, which mental hygiene holds before us, might

be stated in this way. The organism is able to coördinate its own cravings in order that they may be expressed satisfactorily and objectively in ways socially approved. This implies that organisms use their intellect or intelligence in meeting the facts of every situation squarely and work out their satisfactions in terms of those facts. They use no indirect, evasive or subjective means to escape the problem of wresting biological success from the world of men and things as they actually are. In other words, the healthy adjustment is the scientific adjustment, which controls situations by mastering the facts in the case and manipulating them with intelligence and skill to carry out the ends of the individual. It is never to be forgotten that the most important situations which the human being has to meet are social and that the facts he has to understand and work with for the solution of his problems are social too. The way other human organisms behave is as important for him as his reactions to his physical environment. There is no moral reason why the organism may not use any control it can work out, but, as a matter of fact, no thorough-going control can be attained on any other than a realistic basis. All other methods are subjective and illusory and break under the strain of living.

If the mental hygiene goal for human beings is biological fulfilment, success, objective expression of the great human interests, independence—in short, full grown adult individuality which faces life in a positive, constructive manner—then we must examine adolescence to see wherein it presents

peculiar and unusual obstacles to all young people in the attainment of such an ideal. Why should life become more difficult at that point and hold so many possibilities of disaster?

Adolescence seems to be a crucial point which tests out the wholesomeness of the previous development. It is the point at which the individual takes on two selves. To adults around him, he is still a child, when they wish him to conform to their desires; when he fails to accept authority and brings down condemnation for his behavior, he is reproached by the adult in terms of his age and approaching manhood. "Jimmie is almost a man. Doesn't he know a man doesn't do that?" But when Jimmie asserts his independence he is quickly delivered back to the unfree state of childhood. Inside of Jimmie a similar conflict rages. At times, he feels himself a free, independent individual who can go forth courageously into the world, leaving the oppressive weight of family authority and interference behind him. But there are moments when he seems so helpless and alone in an uncharted country that nothing short of his mother's reassuring presence brings any relief. Whether Jimmie will be able to keep his face turned steadily, frankly, courageously toward the world of independence and responsibility and slowly but surely deprive himself of the comfortable protection of the family and maternal solicitude, depends upon everything that has gone into the making of Jimmie up to this point.

There are two lines of inquiry we should have to make to determine what Jimmie's chances are and what his problems are likely to be: first, as to the development of his work or play life; second, as to the development of his love and sex life. We want to know whether Jimmie has carried both

his work and love interests beyond the subjective, auto-erotic stage over into an objective fulfilment as far as his ability and environment have permitted.

DEVELOPMENT OF WORK OR PLAY LIFE

On the work side, is he occupied for the most part with realizing concretely his work, or if you wish, his play interests? If he wants a wagon, will he cry, or sulk, or have a tantrum until his father gives in? Will he steal a wagon? Will he brood over it, dream about the wonderful things he could do with it, but make no effort to secure it; or will he apply himself energetically to some plan for earning the money or building a wagon out of home-made materials? How difficult is it for Jimmie to put his desires into effective action? How difficult is it for him to get what he wants in terms of the facts as they are, without evasion, anti-social behavior, or substitution of day-dream fulfilment? Moreover, one must ask how interested is Jimmie in work and play. Has he a plentiful supply of interests and have most of these interests definite concrete ways of getting expressed? That is, has Jimmie both the "drives" and the developed techniques for realizing them? Whether or not he has, will depend not on Jimmie alone but on the entire background to which Jimmie's behavior has been a response.

If Jimmie has been under a strongly repressive discipline, if all of his attempts have been discouraged or subjected to ridicule, if environment has limited too greatly his opportunities, if health has prevented aggressive or effective action, if some inferiority, real or imagined, physical, mental or social, has developed a habit of non-aggressiveness, a fear of attacking a new project, a hesitancy to go over into

positive action, a tendency to evade responsibility because of fear of failure or exposure of weakness, then we may expect to find adolescence producing the most critical problems. A child who has grown up on the subjective plan, who has never learned to deal squarely with facts or to win approbation by legitimate efforts, or who has gone into compensatory activities of an anti-social or auto-erotic character, has been able to put off the results of such methods of meeting reality because of his childhood. The family, even the school or the foster family, will accept many such bad adjustments without realizing how serious they are, as a part of childhood. With adolescence, however, comes a point, when life looms up and even the family cannot continue to protect the child from his growing years. He must begin to get the come-back from his habits of poor adjustment. The patterns he has been using will not work in a world outside family protection. If he has not been accustomed to finding active concrete expression for his interests, the sudden flood of new energy, the widening of the horizon, the social impetus that youth receives, will swamp his motor apparatus. He has no techniques developed and has not the habit of trying to develop them for every new interest.

These vague but powerful forces coming in upon the old situation are difficult enough to harness into actual achievement, even with the best efforts of adolescence. They imply the subtle, elusive, complicated techniques of social relationships and community life, the creative expressions of art through techniques which take a life time to master—the complicated processes of all the various enterprises of an adult world. They involve not only difficult techniques, but the willingness to free one's self from the

economic support of the family and take on responsibility for one's own living. There comes a tremendous fear to many young people in the thought of economic independence, no money to fall back on unless one is able to earn it. Supposing one should lose his job! No father, with open pocket book, to help out, no comfortable home to drop into when work gets unpleasant! When that realization is suddenly forced upon the adolescent, there is often real terror behind it and it requires a genuinely healthy, courageous habit of meeting the problematic situations in life to make the adjustment without evasion.

A very unstable girl of eighteen who has been forced to work since she was fifteen because she has no family back of her, resists work and changes jobs frequently but is obsessed by fear as soon as she is without work. She has contemplated prostitution and has gone so far as to go with one or two men for the sake of an evening's entertainment. But her fear when she is not working is too great to allow her to depend on men friends completely, and she resists the loose living unless she has a good job. Her dislike of work, her fear of growing up are so great that the necessity for working has been registered almost as a compulsion. Needless to say she also fears adult sex life and is held back by that.

This particular girl, whom we shall call "Alice," illustrates the adolescent conflict when there is too great a pull-back, too many obstacles on the side of normal growth. Her early home life turned her against men and sex because her father was an abusive drunkard, unable to support the family. Her mother put all of her love and desire into the indulging and spoiling of her daughter. Alice was taught to dress above her station and feel herself better than others. She was the

petted, adored, only child. Then the mother died, leaving Alice to an unsympathetic, over-worked old grandmother, whom the girl has never ceased to blame for her lost childhood and its pleasures. Alice submitted but never accepted this change of living. She never ceased to long for her mother and the delights of adoration, dress and pleasure obtained without effort.

Then the grandmother died, leaving Alice without anyone, penniless and with not even a common school education. Inevitably, she went to work without skill or training, hating the grandmother and even her mother for dying and leaving her to such a fate. She had never developed the kind of initiative and persistence that would enable her to get education by night work. She was not strong. She craved pleasure; she blamed other people and fate for every misfortune. She developed an evasive way of meeting every unpleasantness, every failure of hers on a job. Now, she is often late to work, she resents correction childishly, she is unreliable, stays away if she has the slightest pain, wants a lot of attention, has no idea of business etiquette. When she loses a job, the employer or a fellow employee is to blame.

Adolescence increases the yearnings for a home, for a mother to fall back on. The only other outlet she can see leads to the pleasures which mean sex: cabaret, movie, dance hall. Alice is afraid of sex. She resists the idea of marriage. What does she want with children! Look how her mother suffered and in the end had herself and baby to support!

So Alice is caught with no developed interests, no techniques, nothing to stabilize or inhibit the regressive impulses. When one talks with her, one gets the full force of the adolescent

yearnings. She wants to be somebody, to do great things, to be superior. In her good moods, she is overwhelmed with dreams of accomplishment. She pines to use good English, to be a real lady. There is pathos in her inquiry as to what you say when a boy introduces you to his mother, and how you behave in a fashionable hotel dining room. Such questions have an importance that is almost greater to her than the problem of how to keep straight sexually. Winning of social approval is an ever-present burning desire, but she has no patterns, no habits, no control over the daily details of the process whereby this is gained. When one tries to place her in a good environment with girls of a better class, she reacts with a deepened sense of inferiority, expressed in more open, boastful wildness. She invents adventures with men to dazzle these virtuous, superior maidens. The craving for pleasures and something to make her forget increases.

What one would do, if it were possible, is to hold Alice long enough to see her through the learning of some skill or technique in which she could be really superior and by which she could earn a decent living. The difficulty is that owing to the amount of instability she has developed, it requires almost constant supervision just to keep her in one place physically, as well as to hold her to the daily effort of mastering a hard task. It also takes a great deal of money to float this project for which no guarantee of success can be held out.

It is not strange that youth finds it hard to buckle down to concrete accomplishment. The urge of life is so intense, the dreams so quick and glorious, the actual process so slow. Dorothy, a youngster who by temperament and every handicap of environment had learned to depend almost entirely upon day-dream fulfilment, found her-

self at seventeen facing the problem of earning a living. She had not one single worked-out process to make her useful to any human being. She was unstable, imaginative, impatient, undeveloped to the *n*th degree. It looked like a hopeless proposition. All the authorities predicted ultimate breakdown and failure. One faithful worker, however, took her into her own home, provided a stable background and concentrated all her efforts on holding the child to learning one technique by which she could become self-supporting. There were ups and downs: she ran away; she stayed out all night; she made living a stormy affair for her friends; she quarreled with every companion. She had to be held down to studying her lessons at night by the constant attention of an older person. Her course in stenography was interrupted by absences and bad behavior. In the end, the worker on the case triumphed. The child completed the course and took a job. She had developed a genuine skill. Although her work record for a long time consisted of one job after another in rapid succession, the fact that she knew how to do one thing well, always brought her back to working and its possibilities. The periods of keeping one job grew longer, the upsets less damaging to work. Friends held on. After three years, when some of the adolescent conflict had abated and the growing skill as stenographer had begun to have its effect, we find our unstable girl steadied down into a well-paid, reliable, worker whose emotional upsets are understood and adjusted by her without giving up work.

We have been following the development of the play and work interests of the individual and trying to show how a subjective, regressive development, or call it a lack of development, if you wish, leads to greatly heightened con-

flict at adolescence because of the increased pressure of internal as well as external forces.

DEVELOPMENT OF SOCIAL RELATIONSHIPS

On the side of the love interests, the development of social relationships which can be separated from the work side only arbitrarily, we find a similar situation. The individual whose love life and social interests have broadened progressively and have taken on a more and more objective character meets the effort required of adolescence to face adult sex and social responsibility with courage and positive striving. The individual who because of some inferiority, real or imagined, physical or mental, has tended to depend upon mother love or family tolerance, and has avoided the possible criticism of an outside world by shutting himself away from others and comparison with them, will easily find in adult love and hetero-sexual relationships, something too difficult to be faced. He will either desire to remain in the sheltered family situation, where he is loved no matter what he does or is and where as a child he can cling and depend and feel no responsibility for loving back again, or he will find in the world someone who will accept him on the same basis, and allow him to remain infantile or childish in his love needs.

Such a condition is, of course, often produced not by any essential weakness of the individual but by a combination of circumstances: an infantile or unsatisfied father or mother using the child in a selfish way to appease his or her own love needs, preventing it from growing away from the parental attachment as it normally should; the widow-hood of the mother forcing the boy to take the father's place and attaching his love for life; the handicap

of a long physical illness or extreme delicacy, reinforcing the ordinary resistance to going over from the certainty of mother love to the winning of hetero-sexual love under conditions of rivalry and possible defeat; the accident of circumstance which deprives the girl or boy of contact with the opposite sex at a time when the transfer of love interest is ready to be made and conditions him or her to homo-sexual or auto-erotic expression; the repression which puritanical adults, teachers, parents, schools, orphanages, put upon the normal hetero-sexual impulses of adolescence. When one contemplates all the influences that are at work to prevent the courageous objective development of love and sex, one wonders why adolescence ever follows a normal biological course.

Alice illustrates almost all of these influences. She is held back from maturity by the pull of childish cravings for mother love and protection. What she wants is not the objective adult love of one independent individual for another, but subjective satisfaction. She is not looking for the kind of man whom she can love with a real appreciation of his qualities and a sharing of his interests; she is looking for anyone who will give her the sense of security, the spoiling and indulgence the mother supplied. Alice seeks not a mate but someone to devour. She will consume her love object. She is not motivated by any dreams of home and children. Her hunger is for a pleasurable, care free existence in which she is responsible neither for work nor for love. Even on the physical side of sex, Alice has no desire for adult expression. She has all of the repressions which her mother's hatred of men, her father's behavior and conventional sex taboos could produce. Theoretically, she is as prudish as any carefully guarded

virtuous maiden, but her practice and her theory are as separate as the poles. Alice sins but she refuses to embrace her sin. Physical sex is a disgusting fact of life to which she yields because it buys the pleasures which are essential. Her conflict is none the less real for its inconsistency.

HOW TO MEET PROBLEMS OF ADOLESCENCE

What can we do practically to meet the complicated problems of adolescence? How can we lessen the struggle or lend strength to the forward looking interests and impulses? If we wait until adolescence has begun, we shall have a difficult task. But granting that most of the adjustments should have been made earlier and taking adolescence as we actually find it, what is possible?

We can surround youth with encouragement. There need be no sneering superiority, no ridicule, no tyrannical authority, no dogmatic over ruling, nothing to undermine the confidence and assertion that are necessary to approach work and love on an adult basis. We can have young people as free as possible to develop their own interests, free to discover for themselves, to experiment, even to make mistakes. We can give them freedom to experiment in the ordering and control of their own group life as well as their individual interests.

We can recognize and supply the need of youth for interpretations of life, ethics, religions, philosophy, scientific and social theory, something general enough to be mastered verbally and used to reduce the chaos of a new world to a known and familiar thing: something to make life a safer, more manageable affair. Adolescence craves a unifying theory to use as a stepping stone from the safe limits of childhood

to a boundless universe otherwise too strange to be faced.

Parents and schools can see to it that youth is supplied with definite skills and techniques, that potential interests go over into action. They can show young people how to gain objective happiness in creative work. They can so equip adolescence that it will not be left defenseless in the face of an adult world with only dreams to offer. The family can reduce the pull-back of childhood by encouraging economic independence, breaking away from home, going away to college, widening the social interests to extend beyond the family circle. The parents can keep their love for the child objective and unselfish and welcome his growing independence and hetero-sexual interests.

Last and most important, if we are wise enough and grown up enough

ourselves, we can give the adolescent an interpretation of sex and human behavior which will enable him to face frankly his own cravings and inferiorities real or imagined and adjust to them in a positive, constructive spirit. Sex instruction as now provided in the public school is not equivalent to assisting youth to a happy emotional adjustment. Like Alice, one may know the facts of sex and hate them. Can we provide parents and teachers so well adjusted and understanding that they can take the adolescent at the critical moment and through their own courageous and positive attitudes show him the way, for not only does he need to face sex and learn to look forward to love and marriage, he needs even more to accept himself, honestly and frankly, to recognize inferiorities and abilities and learn the lesson of compensation!

The Behavior Problems of Atypical Children

By FREDERIC H. KNIGHT, PH.D.

Superintendent of New England Home for Little Wanderers and Director of its Department of Child Study

THE purpose of this article is to suggest certain practical methods of dealing with atypical children. In determining what is meant by an atypical child, we may approach a definition from the standpoint of certain physical and mental tests or we may reach a definition by a study of the child's career in the world thus far. The definition reached by the first process is as follows: An atypical child is one who upon examination is found to be seriously deficient in one or more of the abilities essential to social fitness. The definition reached by the second method is: An atypical child is one whose social reactions indicate that he is seriously deficient in that which ex-

perience shows is essential to social fitness.

For our purpose we shall follow Porteus and include in the term, social fitness, "earning capacity and learning capacity which contribute to self-support; temperament, disposition, judgment and common sense, which are factors in self-management, inhibitions of anti-social instincts and impulses which lead to self-control."

In our own work, we have given exhaustive physical and mental examinations and have paid careful attention to the social history of every child. The minimum staff required for the proper study of a child in our opinion is as follows: a competent social

worker, a skillful pediatrician, a well-trained and experienced psychologist, accurate observers, a psychiatrist with a thorough medical training and a director who should have the necessary training and skill to enable him by a process of careful synthesis to edit and combine the findings of the various specialists into what may be called a unified diagnosis.

CHARACTERISTIC BEHAVIOR PROBLEMS

In the great majority of instances children are brought to our Department of Child Study because they present behavior problems with which those who have immediate charge of them do not feel competent to deal. Upon my desk at this moment I have two letters which will serve to illustrate this statement.

In the first letter, we are told that William is seventeen years old, is in the junior class in high school, exceptionally bright, has a fine face and figure and is very courteous and considerate. He does not run away, neither smokes nor drinks and is apparently without bad habits with the exception of that habit which occasions the very serious problem that brings him to our attention. In the words of the applicant, William is just a plain, everyday liar. He will borrow money of anybody with no expectation of repaying it. He borrows it when he has no use for it himself and having obtained it will lend it or give it away. He will go to stores and get goods, and has no hesitancy in having them charged to his father or to anyone else, when there is no necessity for it.

In the second letter, we read that Martha Elizabeth, a girl of seventeen years of age, lies, steals, runs away, is disobedient, is insubordinate at times, is "queer," has marked tantrums, is cruel to other children, is retarded in school work and presents certain sex problems.

The problems presented by these two children are certainly serious and perplexing and quite beyond the ability of their parents to solve. These letters illustrate the further point, that children are brought to us because of the very practical bearing of their behavior upon their own welfare and the welfare of the families with which they are connected. There is very little general interest in any type of "queerness" which does not have a direct and immediate bearing upon social fitness. If there are other abnormalities in children which have no such bearing, they may be interesting as subjects of study but they do not concern us in the present article. These two cases illustrate still other features. In both of these instances, as in practically every case, the problem child previous to our first interview has been "studied" by relatives and neighbors, and attempts more or less intelligent and persistent have been made to correct the abnormalities presented. It is doubtless true that in the great majority of instances children have been bettered by the sincere efforts of their parents to discipline them, but occasionally it happens that fatal mistakes in discipline have been made and the condition in which we find the child is beyond any hope of remedying so far as our efforts are concerned.

The final fact illustrated by both of these cases is this: In practically every instance the problem child, previous to our first interview, has built up a system of defense and has persuaded himself either that the behavior which has led him into difficulty is really of no special consequence or that it is so common as to be expected, or is the fault of someone else. In the case of older children, even those with good mentality, it is often a very difficult task to discover the child's real condition and to make it clear, when such a course is

advisable, that attempts to rationalize misconduct are disastrous.

STATEMENTS AND ACTUAL FACTS IN THE CASE

However, after attempts to understand the child and to discipline him on the part of parents and other relatives who have done their best or their worst, the child at length comes to us. The two questions which are asked of us at this point almost without exception are these: What is the matter with this child and what can be done about it? In an attempt to answer these questions we turn first of all to a social worker. At her hands we require data which will give us a knowledge of the child's developmental history and, as far as possible, an account of all the child's reactions to its environment from birth to the present day. We desire to find out all that can be found out about the child's inheritance, for heredity still plays a part in a child's career, notwithstanding the fact that we have great difficulty at times in determining just what that part is. If it were possible to know all that there is to be known of a child's heredity and of his career in the world thus far, the data furnished would enable a competent psychologist more certainly and more accurately to arrive at a just diagnosis than is possible as a result of any system of formal mental testing without such data. We need, therefore, as accurate and complete knowledge of all the significant facts in the case as we can obtain. These facts are suggested by the terms—heredity, development and career.

At this point it may be well to indicate the wide difference which sometimes exists between statements made concerning the child and the actual facts in the case. This discrepancy is well illustrated in the study we have just made of a girl fourteen years of age

who came to us accused of cruelty to little children, untruthfulness and dishonesty. From the testimony of the school teacher, we got the statement that Julia had stolen a ring. In conversation with a foster mother, we were told that Julia had stolen clothing. Another foster mother said that Julia was very cruel and abusive to the little baby in the home. These statements are all in black and white, preserved in our records and further dignified by the term, "verified data."

What were the facts in the case? The ring in question, which beyond doubt had been in Julia's possession for a time, was a rather crude affair made by a child out of a five cent piece. One day at school the owner of the ring asked Julia if she would not like it and upon receiving an affirmative answer gave it to her. Julia found it too large for her but wore it when she retired and lost it during the night in the bed-clothes. The next morning the original owner of the ring, not intending to part with it forever, requested its return and was told that the ring had been lost. The whole matter was then taken to the school teacher, an inexperienced young girl, eighteen years of age, born and reared in the neighborhood. Upon no data at all except the conflicting statements of the two children, this teacher reached the conclusion that Julia had stolen the ring and so recorded it and so wrote us.

The story of the stealing of the clothing was next investigated and it was discovered that only one article of clothing, namely, a linen collar, had disappeared when Julia had left this home. The foster mother had packed Julia's effects and had inadvertently put the collar in the child's dress-suit-case.

There was rather more to the story of the cruelty to a baby. The baby in question turned out to be a child be-

tween four and five years old, a husky, untrained, fractious little fellow, whose mother, failing to get on with him, had turned him over to this fourteen year old girl. From all accounts, the girl managed the baby rather better than its own mother, but resorted at times to corporal punishment, though not to such an extent as to injure the child in any way. The so-called "verified data," had been deemed sufficient to raise a very serious question as to the advisability of attempting to place Julia in another private home.

When our study was completed we found that Julia, while she had suffered much from her environment and from frequent changes in her home, was a girl of excellent mentality with a good social and ethical code, giving promise of attaining unto an unusual degree of social fitness, under proper treatment.

This case serves to illustrate, as I have said, the wide divergence at times between statements regarding the child and the actual facts of the case. It sometimes happens that the facts are very much worse than the statements, and at times the contrary is true.

NECESSITY FOR COMPLETE HISTORY

The necessity of getting a complete history of the child is well illustrated in the case of Henry, a boy of seventeen years of age, brought to our attention within the past year. The complaint made against him was that he was mischievous and inclined to amuse himself at the expense of other people. He was very fond of telling startling stories which, however widely they might differ in other respects, were always characterized by this feature: that the central place in the picture was occupied by the narrator. Neighbors dreaded to have this boy about and rightly or wrongly charged up to his account practically all the troublesome mischief done in the community.

At first glance the situation seemed to be covered by the explanation that here was an active boy without a reasonable program, who proceeded to fill up his time with such activities as occurred to him and whose tastes ran along the line of troubling other people. His habit of telling startling stories seemed to be explained by the fact that having no actual experiences of his own to make his conversation interesting, he exercised his ingenuity in inventing interesting and startling situations in which he always played a prominent part. For instance, when an aeroplane noisily sailed over our heads, he remarked that he had lost interest in aeroplanes; he had been up in them so many times that there was no novelty in it any more—the truth being that he had never been in an aeroplane in his life. A summer squall blew over the lake. He declared that he had been in the worst of it (though he had not) but that this squall was nothing to one which he experienced on the coast of Maine, where, during one afternoon, he, with one other to help him, pulled fifteen hundred lobster pots out into deep water so that they should not be destroyed by the fury of the waves. We recognize, of course, a somewhat selfish and wholly uncontrolled desire to occupy the center of the stage whenever possible. If one should wish to find a native instinct at the root of this habit, he might speak of the desire for approval and display which seemed to be developed to an abnormal degree in this youth. The necessity for inventing situations in which he is the praiseworthy and central figure roots itself in the poverty of the boy's actual experiences.

If, however, we had stopped here we should not have reached the very serious root of his difficulty. Further study revealed the fact that at the age of seventeen he was still in the first year

at high school, that he had not made his promotion clearly and fairly since he graduated from the sixth grade. He had been practically expelled from school because he claimed that he had sold a very large number of tickets to a school entertainment but could not produce the money for the tickets, the fact being that he had never sold the tickets but desired to have the glory of being a leader in that respect. Inasmuch as he would not produce the tickets and could not produce the money, trouble ensued.

It was further discovered that ever since his birth this boy had been the peculiar pet and pride of an over-indulgent mother. Times without number his mother had credited him with clever sayings and deeds which, as a matter of fact, he had never said or done.

The diagnosis in this case is fairly clear. The prognosis is rather dark. The boy is still his over-indulgent mother's pet. He sees no fault in himself, and in his mother's sight he is exceptionally fine. The case offers a good opportunity of formulating what might be called a psychological sequence. First, we have a native mental defect which is the central and determining fact in the case. Superimposed upon this defect is a long period of home life and training which could scarcely have been less fortunate, including, as it does, constant overstatements of the imaginary cleverness of the boy's sayings and doings, which have resulted in an utter lack of appreciation of the importance of truth telling and the beauty of modesty. In our opinion, had greater wisdom been shown by his parents, the boy could have been trained to a fair degree in the appreciation of truthfulness and modesty. The next link in the chain is an increasing unreliability and braggadocio, and the distaste for all serious work. The idle hands of a high grade moron easily find much

mischievous to do. The other social reactions in the case are precisely what one might expect, all the facts being known. The parents are well-to-do people who would not for a moment consider a new home for their child and who cannot be made to see the mistakes which they have been constantly making.

IMPORTANCE OF THE CHILD'S MENTAL CONTENT

After the formal physical and mental tests have been given, there is no part of the scheme of child study more important or more fruitful than that of carefully ascertaining the child's present mental content. By that is meant the discovery of such of the child's ideas as are fixed, or are tending to become fixed, with the emotions which are associated with them. The social and ethical codes which the child really accepts, although his behavior at times may be at variance with these codes, are of great significance. It is very important to get, if one can, the child's interpretation of his own behavior, for, after all, anti-social conduct such as lying, or stealing, or truancy or disobedience, may have a very distinct meaning to a child which is not all the meaning which appears so obvious to his seniors. Our studies here afford numberless illustrations on this point.

When is a deviation from the truth, a lie? A boy sees one elephant in a circus parade. Three days after the circus has left town he is overheard telling his playmates that he saw two elephants, and is promptly reproved for saying that which is not true. At the funeral services of his grandfather held three days after this episode, he hears his pastor make this statement: "I see the soul of the departed attended by legions of welcoming angels sweeping through the pearly gates into the new Jerusalem." No one thinks of reproving the preacher for a statement of this

kind although it is absolutely devoid of truth. The minister never saw any such thing. If called to account, he would say that he saw it with the eye of faith, but he would be sorely put to it to explain to a boy of fourteen just what the eye of faith is. My contention is not that the minister should be punished for making a statement which has no basis in known fact, but that before the boy is punished for saying that he had seen two elephants, he should be given an opportunity to give his own interpretation of his statement. Possibly he saw two elephants with the eye of faith. At all events, he saw one more elephant than the preacher did angels. Under proper guidance many a child can give a better explanation of his behavior and can disclose more accurate data bearing upon his mental life than can be gathered in any other one way.

At least two mistakes are to be avoided when one attempts to ascertain a child's present mental content. The examiner must not play the part of the conjurer who puts the rabbit into the hat that later on he may extract it therefrom. In other words, the examiner must not suggest to the child's mind ideas which questions may bring out of it later on. In the second place, the examiner must keep a perfectly open mind himself until the evidence is all in. Otherwise, he will be in danger of forming a premature opinion which will make him desirous of getting either facts against the child or statements favorable to the child. When an opinion has once been formed it is quite natural for the examiner to discover data to substantiate that opinion. No part of the task of studying the child requires greater patience, fairmindedness, knowledge of the world and the ability to evaluate data than that with which we are now dealing.

We make no reference to the psycho-

analytic methods connected commonly with the name of Freud, not because we underestimate their importance but because the whole subject has frequently been handled with much more skill and knowledge than the present writer possesses and any satisfactory statement would require much more space than is at the writer's command.

Also because of lack of space we shall not present in any detail the work of the psychiatrist, but shall merely state that the psychiatrist's study of the whole field of the child's personality is of the utmost importance in determining the proper diagnosis and in suggesting treatment.

FINAL DIAGNOSIS

When the reports from the social worker, the pediatrician, the psychologist, the observers, the psychiatrist and others interested are in, the director, whose duty it is to edit these findings and to reduce them to a unified diagnosis, will find himself in the possession of a considerable amount of data of various kinds and of all degrees of importance. He must first of all diligently eliminate from consideration all that does not have a bearing upon the question of social fitness. What remains must then be carefully evaluated and interpreted. The relation of one fact to the others must be carefully determined. The diagnosis finally reached must be the natural sequence of that part of the data furnished which is thought to be of chief importance, or which has to do with those abnormalities which have contributed to the problems presented in the child's behavior. Just as the physician in diagnosing a case presented to him would not consider a patient's politics, his religion, or certain harmless birthmarks, but would make his diagnosis of pneumonia upon a careful consideration of data bearing upon physical

disease, so in the solution of behavior problems we must confine our attention to data bearing upon the nature and solution of problems in that field. The diagnosis is the succinct, comprehensive and definite conclusion reached by a consideration of the data in the field concerned. In other words, the diagnosis should, as far as possible, satisfy the just demands of all significant data.

A concluding word must be said in regard to follow-up work. It is most exasperating to expend time and effort in an attempt to reach a just diagnosis in a problem case and to suggest methods of treatment which promise well for the child concerned, only to find that there is no one available with

sufficient interest or intelligence to carry on the treatment suggested. All too frequently the findings of psychologists and psychiatrists have been placed in the hands of relatives or friends who either fail utterly to understand the findings or are unable to carry out the directions given as to the treatment of the case.

In child helping organizations of the better sort nothing is more noticeable and nothing is more encouraging than the increasing skill of those to whom is given the task of dealing with atypical children. Under the best conditions we have failures enough to keep us humble and successes enough to convince us that we are on the right track.

Public School Provision for Exceptional Children

By ARNOLD GESELL, PH.D., M.D.

Professor of Child Hygiene, Director of Psycho-Clinic, Yale University

IN the consideration of certain problems of child welfare we are apt to forget or to undervalue the importance of our public school system. Our vast aggregation of elementary schools ought to be regarded, however, as our largest and, in a sense, our most legitimate child welfare agency. Certainly the historic sanction and strategic position of the public school system in the American commonwealth make it the most promising instrument for the further development of public policies in behalf of a very large proportion of those exceptional children who because of handicap or other circumstances need a special measure of extra parental care during the years of their education.

A few statistics will convey the broad outlines of the national situation. The figures are rounded but sufficiently accurate for the purpose in hand. There are twenty millions of children enrolled in the elementary public

schools of the country. These children are provided for in over a quarter of a million of buildings with a valuation of two billions of dollars. The personnel of this vast plant consists of over a half million teachers, supervisors and superintendents, and, in city districts, of about three thousand physicians and school nurses and sixteen hundred truant officers. The welfare of no less than three quarters of a million of physically and mentally handicapped children is affected by the policies of this huge institution.

A complete classification of handicapped children would include all those children who, by virtue of exceptional circumstances or by inherent or acquired constitution, deviate so much from the normal as to cause a special status to arise with reference to their educational and social treatment. Sometimes the courts determine when the special status exists; sometimes it

is a matter of common knowledge; sometimes it is recognized only by experts; but in one way or another, the handicapped child generally comes within the purview of the public school system and educational law.

A comprehensive list of the consequential forms of handicap would include those of environmental character, such as abnormal home conditions, illegitimate parentage, dependency, neglect and injudicious employment; and a large group of constitutional and acquired handicaps affecting physique, sensation, motor capacity, speech, conduct and mentality. We shall consider mainly the children with constitutional and acquired handicaps.

It is, of course, impossible to set precise limits to such a term as handicap. The scope of our discussion, however, is indicated by the following quotation from a recent Connecticut statute.

The term educationally exceptional children shall include all children over four and under sixteen years of age who, because of mental or physical handicap, are incapable of receiving proper benefit from ordinary instruction and who for their own and the social welfare need special educational provisions.

On the basis of this definition I would estimate that about one public school pupil out of twenty-five may be regarded as exceptional, from the standpoint of child welfare and school administration. The distribution of such exceptional children per 1,000 of all children of compulsory school age, would be approximately as follows:

Blind and partially sighted.....	3
Deaf and semi-deaf.....	2
Crippled.....	2
Physically defective.....	12
Psychopathic.....	2
Delinquent.....	4
Speech defective.....	3
Mentally deficient.....	12
Total number per 1,000.....	40

If we give the term exceptional a still wider connotation, we would include in the above list two further groups of children: (1) Those who are not classifiable as feeble-minded but are extremely dull or non-academic and (2) those who are unusually gifted or endowed with superior intelligence. These two groups combined would bring the total up to 50 per 1,000. They are by no means unimportant from the standpoint of social and educational policy.

No one of the groups mentioned can be limited with absolute precision. A speech defect, for example, may be so mild as to be negligible or so severe as to constitute a real handicap. The figures given above are restrained and are intended to include school children whose defect or deviation is so serious as to demand special consideration even in a non-Utopian state.

A generation ago the exceptional child was not considered to be a legitimate public school problem. It was assumed—it is even now sometimes argued—that *the* business of the schools is to teach the statutory subjects (reading, writing and arithmetic). But the principle of compulsory education in a democratic country has carried with it implications and complications which have brought about an altogether different point of view. A policy of exclusion of exceptional children would have lead only to confusion and injustice. The public school in progressive communities is steadily shouldering the whole problem of defective and handicapped pupils, and one can find today examples of special tax-supported provisions for every type of exceptional school child.

It is unnecessary to go to extremes and to contend that special state institutions for defective and handicapped children are to be systematically discouraged. Such institutions have an important work in the care of those

eases who, for practical reasons, cannot be reached in any other way, but as a matter of public economy and public policy we should do everything we reasonably can to keep certain types of defective children near their fathers, mothers, brothers and sisters. Indeed, there may even be good reasons for doing what England is doing, namely: placing small groups of children (like the crippled or deaf) in family homes located near public schools where these children can get the same sort of training which they might otherwise have to receive in some more remote central institution. The whole drift of legislative and social program is in the direction of expanding the authority and scope of our public school system in such a way that local communities, like cities, towns and counties, can take primary responsibility for the care of their own child welfare problems.

The present scope and possibilities of public school provision can be indicated briefly for each of the eight classes of children referred to in the preceding classification.

1. *Blind and Partially Sighted.* The number of pupils in schools and classes for the blind in 1918 was 5,386. About 9 per cent of these were receiving their education in ten cities where classes for the blind are part of the public school system. The first city school classes for the blind were inaugurated by New York and Cleveland in the year 1909. One or more classes are now maintained by Chicago, Detroit, Jersey City, Newark, Cincinnati, Mansfield, Toledo and Milwaukee. It is very significant that in a short period of twelve years, such a large proportion of blind children has been reached by the public schools; and that states like Pennsylvania, Ohio, Minnesota and New Jersey have passed laws providing liberal state aid for the education of blind children in public school classes.

Cleveland has been a pioneer in having the blind taught in classes with seeing children. The special teachers for the blind children are tutors for the group and segregation is reduced as much as possible. Since the blind must find a place in life beside the seeing, this Cleveland plan has much to commend it. This same consideration is a reason for the further extension of public school provisions. It is not impossible that state departments of education and commissions for the blind will gradually develop an administrative technique, through supervising experts, visiting instructors and training centers, whereby an increasing number of blind children from small communities can be educated under public school auspices. The fact that the per pupil cost of education in a public school class for the blind is less than half of the per pupil cost in a public institution will fortunately not act as a deterrent.

The education of the near blind or partially sighted is a problem which falls peculiarly within the scope of the public school. Surely it is not a problem to be solved by erecting state institutions, or by excluding the child from school attendance. The task is not a small one. The Massachusetts Commission for the blind found that 4 per cent of all school children tested had less than one-half normal vision and that four tenths of one per cent (one in ten of this group) were so seriously handicapped as to require special educational procedure. Special classes for partially sighted children are being established in several of the larger cities of the country, as sight conservation classes, and with very beneficial results. These classes should be fostered; but here again the special class has its limitations. More flexible provisions, more abundant materials, including large type texts, can be created to reach the individual child who in spite of his

visual handicap must be maintained in a regular school.

2. *Deaf and Semi-Deaf.* The drift toward public school care has been even more marked in the case of deaf children than in the case of blind. This is all the more remarkable when it is recalled that the education of the deaf is one of the most difficult of pedagogical tasks. Government statistics show that the number of state and private schools for the deaf since 1900 has remained practically the same throughout the United States. The number of public school day classes has increased from 41 in that year to 69 in 1918. The enrollment in these classes has mounted from 749 in 1900 to 2,482 in 1918, an increase of 231 per cent; while the relative enrollment in state institutions has declined in the same period from 89 per cent to 78 per cent.

This is a wholesome tendency. The care of the deaf like that of the blind should so far as possible be de-institutionalized. Whenever practical the deaf child should grow up in contact with the hearing child. Such contact can be supplied in the public school. Moreover, public school provisions for the deaf encourage the beginning of the oral method at the tender but favorable age of three or four, when families are naturally reluctant to commit to a distant institution. Several states now foster the extension of public school classes by special grants of state aid. This, fortunately, is an administratively economical as well as humane policy. The average annual cost per deaf pupil enrolled in the public schools was (in 1918) \$195. The corresponding average per capital expenditure in state institutions was \$399—a difference of over \$200 per pupil in favor of those communities where deaf children were trained to speak and to read the lips, without being separated from their homes and from the compan-

ionship of more fortunate schoolmates.

3. *Crippled Children.* Chicago in 1899 established the first public school for crippled children in the United States. It now maintains under the board of education a permanent school building for the exclusive use of crippled children. The New York classes inaugurated in 1906 now register over a thousand pupils. As many as eleven special classes for crippled children are maintained in one building.

The provisions for crippled school children in the larger cities often include school lunches and transportation. Sometimes the transportation is to regular classes. The per capita cost is not prohibitive, being less than that for the education of the blind and deaf. In Chicago in 1916 it was \$51 for teachers' salaries, \$8 for lunches, only 16 cents for supplies and \$86 for transportation—a total of \$145.

The complete and careful survey made in Cleveland in 1916, showed that there were six cripples for each 1,000 inhabitants; 22 per cent of all cases were under 15 years of age; 9 per cent were from 15 to 19 years of age. The age distribution of the blind shows that only 7 per cent are under 15 years of age. Furthermore, in only 26 per cent of the blind does the disability occur before the age of 15, while in the case of the crippled the proportion is 49 per cent. These figures emphasize the public school importance of the crippled child.

The solution of the problem, however, involves much more than the creation of special classes and provisions of transportation. Many crippled children need medical care over long periods of time. This care can be best rendered by a hospital type of school, which should, however, maintain close relations with the public system of education. Here again it is desirable to avoid so far as possible unnecessary

segregation or any tendency that would make the cripple self-conscious and dependent. The purely educational and vocational part of the task is one which the public school could undertake even in sparsely settled communities.

4. *Physically Defective.* This group is difficult to define. We include in it all children who are so seriously handicapped by malnutrition, cardiac defect or chronic disease as to be urgently in need of special hygienic arrangements in school. To place the number of such children at over 1 per cent is conservative. The number of undernourished children in an ordinary school population has been placed as high as from 15 to 20 per cent; and as many (to a large extent the same children) are considered to be predisposed to tuberculosis. Medical inspection, health instruction, physical education, nutrition classes, school lunches, home visitation, etc., must be counted upon to reach this large group of physically inferior children.

Open air rooms and hospital schools are, however, necessary for the adequate treatment of many children. The first open air school room in the United States was established in Providence in 1908. Since then, such rooms and open window classes have spread with great rapidity over the country, and can now be numbered by the score. New York alone has in the neighborhood of one hundred open air classes. Vacation camps and summer outdoor schools for physically defective children will undoubtedly be further developed as a legitimate part of public school work. The welfare of the physically defective child in smaller communities depends upon a close coördination of public health, medical and educational control. Much can still be done for him by special adaptations and supervision within the regular school.

5. *Psychopathic.* Although mental and nervous disability constitutes one of the heaviest burdens of society, almost nothing has been done by the public schools in the way of preventive mental hygiene. In 1920 there were 232,680 patients with mental disease, 14,937 epileptics and 1,971 alcoholic and drug addicts actually in institutions in the United States. A considerable proportion of all cases of mental and nervous disease are conditioned, if not caused, by factors which operate in childhood and youth. There are no convenient or accurate methods of diagnosis which will reveal those children who are harboring a latent insanity, or developing the basis for insanity and social inadequacy. Ordinary special class methods will have decided limitations in this field, but careful observation and guidance of pupils with psychopathic tendencies has, on a small scale, been successfully inaugurated in the New York Public Schools. The first step in the development of constructive school measures lies in recognizing pupils who show serious defects in personality makeup, symptoms of emotional instability, emotional shallowness, perversions, irritability, morbid fears, psychasthenia, social maladjustments, infantile dependency, etc. The psychopathic child is father of the psychopathic man. Once the significance of this type of child is grasped, ways and means for ameliorating his condition and forestalling its latter day consequences, can be found.

We need perhaps to develop a new type of school nurse, who by supervision, corrective teaching and home visitation will undertake the concrete tasks of mental hygiene. This psychiatric school nurse would be a counterpart of the medical school nurse and work in close contact with her, but she would revolve in a different circle of problems. Instead of pupils with

discharging ears and deteriorating molars, her clients would be the child with night terrors, the nail-biter, the over-tearful child, the over-silent child, the pervert, the infantile child, the unstable and choreic. There should in time be schools, classes and camps in close relation to city and state school systems, where children of this type may go for long or short periods and secure the combination of medical and educational treatment which alone is adequate to reconstruct them mentally. These provisions imply neurological and psychiatric specialists, educational psychologists and teacher-nurses, all coöperating as public health experts in a work of mental salvage and prophylaxis. From a financial viewpoint these suggestions seem extravagant; but only by such radical and sincere methods can we ever hope to reduce the massive burden of adult insanity. Expensive in the beginning, a preventive juvenile system of sanitation administered through the public schools, may, after all, prove to be a form of socialized thrift.

6. *Delinquent.* What has just been said about psychopathic children applies in great measure to the delinquent group. Both groups comprise disorders of conduct, faulty social adjustment, abnormal behavior and instability. The psychological and psychiatric approach emphasizes the close relation and sometimes the identity of the problems involved in both fields. Our increasingly scientific attitude toward crime is bound to reflect itself in public school procedure.

Cleveland in 1876 was the first city in the country to organize a school for incorrigible boys. A prominent motive was that of segregation and discipline. Similar "disciplinary classes," refractory classes and day schools for truants have sprung up in all our larger cities. Reformatories for boys and girls have

usually been organized as state institutions and largely independent of the state educational system. It is desirable in many ways that public school provisions for the delinquent be further developed, so that the number of commitments to reformatories may be reduced, and more timely preventive work may be done. A very considerable proportion of all careers of juvenile delinquency first manifest themselves in truancy; and a thoroughgoing interest in and study of all types of misfits and exceptional school children would ultimately lead to the reduction of crime. About one-fifth of the population of reformatories is, ordinarily, defective in mentality. Industrial training and supervised vocational provisions in close relation to local school systems would make it unnecessary to commit many of this class of delinquents to state institutions.

The public schools ought to function in closer coöperative relations with juvenile courts, probation service and industrial schools. The establishment by state law of the "Twenty-Four Hour School" in California, is a promising experiment, and may be an object lesson of what public schools, by modified methods, could accomplish for the delinquent without sending him out of the community for reform.

7. *Speech Defective.* Stuttering children are sadly in need of attention; for as a rule they are neglected by both parents and physicians. Only those familiar with the subject can appreciate how serious this handicap is, what suffering it causes, and what effects it produces on the more sensitive child. Stuttering is a disease, often associated with serious mental and nervous complications, but it is definitely curable and responds to corrective training. For many years European public schools have provided this speech corrective work and it is coming to be con-

sidered a natural function of the schools in this country, as shown by recent subsidy legislation in Ohio, Minnesota, Wisconsin and elsewhere. New York started a class in 1909, and has demonstrated the possibility of reaching a relatively large number of speech defective pupils by assigning them for portions of a day and term to a speech improvement class and permitting them to remain in their regular room the rest of the time.

8. *Mentally Deficient.* Inborn and acquired deficiency of intelligence handicaps at least one child out of a hundred. In some respects this handicap is more serious than other forms already discussed; but in other respects it may actually be less serious for the individual and less burdensome to the state, because it yields to social control.

In 1919-1920 the National Committee for Mental Hygiene made a survey of provisions for mentally defective children. Thirty state and 17 private institutions reported 26,774 such children; 108 cities in the United States reported 1,177 special classes providing for 21,251 defective pupils. We know that the number of cities reporting is incomplete. It is safe to say that the public schools of the country are supplying special provisions for as many mentally defective children as are now cared for by institutions. Feeble-mindedness is more and more coming to be regarded as a public school problem. Newark, Rochester, Boston, New Haven and other cities have demonstrated that it is possible to create, within the public school system, day schools for defectives which embody most of the best features of state institutions and offer significant evidence of the adaptability of our public school system. These special schools, and special classes as well, often provide for children whose mentality is no higher than that of the institutional

imbecile. Their chief function, however, is the timely training of the moron along lines which will make him more secure, useful and happy in his community.

Feeble-mindedness is of course incurable, and even the graduate of a special class may need to be sent to an institution; but public school training, supplemented by a system of community after-care, will reduce enormously the necessity of institutional commitment, and reduce also many of the classic consequences of feeble-mindedness: vagrancy, prostitution, dependency, crime—and more feeble-mindedness.

New Jersey, Massachusetts, New York, Wisconsin, Pennsylvania, Missouri and Minnesota, all have laws making the establishment of special classes for mentally subnormal children, obligatory. In all of these states there is supervision by the state department of education, and in most of them some financial aid is granted by the state. Wisconsin bears one-third of the expenses for such classes; Pennsylvania, one-half; Minnesota pays annually the liberal sum of \$100 for each child receiving special class instruction. Prompt state-wide enforcement of compulsory laws is inexpedient; but the general policy behind these laws is correct. Feeble-mindedness is both a state and a local problem; and to a remarkable extent it is a public school problem. A consistent development during the next generation of the policy of public school training and community supervision of these handicapped children, will prove that the problem of mental deficiency is not overwhelming but is manageable.

HANDICAPPED CHILDREN AND STATE POLICY

The preceding review of the different types of exceptional children is neces-

sarily sketchy and imperfect. It reveals, however, a group of closely related problems of great significance from the standpoint of child welfare administration. It appears that the public school is a fundamental child welfare agency with vast powers only partly realized. Sanctioned by far-reaching law and by tradition, and founded on the broad, democratic principle of compulsory education, which carries it into the remotest rural corners, this great agency of the state must in large measure determine the future welfare of handicapped children.

There are several factors and considerations which favor the extension rather than the restriction of public school provisions for handicapped children, namely:

(1) The principle of compulsory education.

(2) The wide distribution of public school facilities.

(3) The growth of medical inspection of schools, of clinical child psychology.

(4) The joint relations of state and local authority in school administration.

(5) The relative economy of public school provisions.

(6) The disadvantages of institutional segregation.

(7) The desirability of maintaining the responsibility of the home.

(8) The importance of fostering local responsibility, and community control of social problems.

The social significance of the principle of compulsory education has been well stated by Cubberley: "Neither does the state establish schools because by state coöperative effort they can be established and conducted more economically than by private agencies, but rather that by so doing it may exercise the state's inherent right to enforce a type of education looking specifically

to the preservation and improvement of the state."

The creation of public school provisions for handicapped children represents a reasonable, constructive, self-protective extension of the principle of compulsory education. This principle has justified, in spite of initial opposition, the development of medical inspection, the establishment of school nurses and clinics and the certification of juvenile employees.

Public school provisions for exceptional children began through local initiative; but the states of the union are now framing legislation and organizing sub-divisions within their state departments of education, through which they will exercise their fundamental jurisdiction. Connecticut in 1915 appointed a school psychologist under the state department of education, and in 1920 passed a law creating a director of special classes. Wisconsin, Pennsylvania, New York, Massachusetts and Wyoming, are among the states that have a special organization for supervising and directing the education of handicapped children.

The functions which naturally fall to the state in the public school care of handicapped children may be briefly summarized as follows:

1. To issue and enforce regulations regarding school enumeration and school registers, which will result in the reporting of all children of school age who, because of serious handicap or exceptional physical and mental condition, cannot be properly educated or trained under ordinary conditions. This would result in a simple form of registration very important for child welfare and social welfare.

2. To issue regulations and printed forms, and to render expert advice and assistance in the educational measurement of mental examination of handicapped or exceptional school children,

including children passing through the children's court.

3. To furnish similar direction and assistance in the organization of special classes.

4. To initiate and direct special educational measures in behalf of exceptional pupils who cannot be assigned to special classes, schools or institutions.

This function is of extreme importance and one which remains almost completely undeveloped. Measures must and can be found which will reach the handicapped child in rural and village communities. Through special courses in normal schools, special visiting supervisors, printed manuals, training centers, school nurses and circulating auxiliary teachers, a technique can be worked out which will remove the present neglect of the handicapped child in the smaller community.

5. To administer the distribution of state aid for special classes and auxiliary education.

6. To maintain general relations with all schools conducted in connection with special state or county institutions for dependent, neglected,

defective and delinquent children.

7. To foster and direct, as far as expedient, measures of vocational guidance and supervision for the benefit of educationally exceptional or handicapped youth up to the age of eighteen or twenty.

These powers are a natural expression of the relation of the state to children and to education. It should also be recognized that they imply a responsibility to handicapped children of compulsory school age who may be attending private and non-public schools or who may not be attending school at all. This responsibility must be carefully exercised, but it cannot be evaded. As in child hygiene the most primary necessity is a registration of births, so in the welfare of exceptional school children the most elementary obligation of the state is the enumeration and registration of *all* seriously handicapped school children. Through the school census and school register over which the state has fundamental control let us find out how many school children are thus handicapped, where they are, and how badly they need our help.

The Visiting Teacher

By JANE F. CULBERT

Staff Executive of the Visiting Teacher Staff, Public Education Association, New York City

ONE of the interesting and promising developments within the public schools during recent years is the work of the visiting teacher. This work was introduced to meet a need that was felt alike by educators and social workers. The latter realized that many of the problems of juvenile delinquency, industrial inefficiency and other social maladjustments could and should be anticipated in the school. Educators were aware that even in

schools representing the most advanced methods of teaching with the auxiliary service of attendance officer and nurse, there were children who did not progress as they should, and that the efforts of the teachers were being brought to naught by undermining influences at work outside the school walls or by the faulty connection between the training within the school and the life outside. Too frequently, even, the home and school, through lack of acquaintance

and misunderstanding, have unwittingly worked against each other, thus thwarting rather than stimulating and reinforcing the best efforts of the other toward the children's development. It was realized that for the effective education of the child, as well as for the prevention of those ills of childhood—and indeed of adult life—that have made social work necessary, two conditions were essential: First, the school must comprehend the *whole child*, the child mental, physical and social; and second, the home and the school must be brought into mutual understanding and coöperation.

Someone was needed within the school system whose duty it should be to know the conditions under which the pupils live and play, and their consequent educational needs, to become acquainted with the individual child in his home and school relations, to discover handicapping factors and to bring about the adjustment of his special difficulties through the coöperation of home, school and social agencies. To assist the school to prevent later social wreckage, and make sure that each child's individual problem is seen and that his educational and social needs are met, the visiting teacher has been added to the school staff.

Those not familiar with school problems or the problems of school children have only to glance at the fact that a child spends but five or six hours a day, or less than 15 per cent of his entire year, in the school-room, to be convinced that the school cannot afford not to take into account how the out-of-school hours are spent, or fail to draw into effective coördination all the educative forces of home, school and community.

With the complexity of our modern city life, teachers may readily fail to realize the conditions under which their pupils live, eat, play, study and

work. With the large classes, too frequently the pupils are not real twenty-four-a-day Toms and Dicks, but just pupils. This should not be construed as criticism of the teacher. Lack of time and energy, pressure of class work, preparation of lesson material, after-school activities, often prevent teachers from knowing the homes of the children. The time consumed in large cities in long trips to and from school also constitutes a limiting factor. With the reduction of the size of classes and the lightening of the teaching load, and with the development of a greater social consciousness through the addition of courses in social work as part of the teacher's training, teachers will in the future, it is hoped, be able to do more friendly visiting and to become better acquainted with existing social conditions and their effect on the children. Even then, visiting teachers will be needed to adjust the difficulties and the limiting conditions which the class teacher has discovered through her home visiting. The adjustment of all but the simpler cases requires the technique of social work, as well as time for calling during school hours to see the mother alone, or at night to talk over with the family group the problem of the child; time for follow-up work, and, indeed, time to meet all the exigencies of the duties of a child's case worker.

THE RANGE OF SCHOOL PROBLEMS

The influence and opportunities of the school period cannot be over-emphasized. The school has now come to be recognized as the logical place from which to work for the prevention of delinquency and other social problems. In more than one city the work of the visiting teacher has been initiated by those who wished to push back the treatment of delinquency further than the children's court. The school has signal opportunity to detect symptoms

of child maladjustments as they appear in school dissatisfactions, poor school work, indifference, in persistently troublesome or erratic behavior, in rumors of undesirable companions or unwholesome interests, in apparent neglect, in environment or home conditions that are dangerous or predisposing to delinquency. Children showing any of these symptoms are referred to the visiting teacher by the principal or teachers, sometimes by parents or neighbors, or a social agency. In fact, the visiting teacher's major work is concerned with just such individual maladjusted or problematic children. The children who claim her attentions include those for whose failures and behavior the school cannot account, the repeater, the restive and the over-age, who are struggling for the day of their release into what appears to be the

haven of industry, the violent-tempered, the irritable, the worried and repressed, those who show tendencies to delinquency, the neglected or the overworked.

A study recently made under the auspices of the National Association of Visiting Teachers and Home and School Visitors shows that the most frequent reasons for referring children to the visiting teachers are as found in the table below.

The study further continues:

From this summary table it is quite evident that the visiting teacher is called upon by the school to grapple with a wide range of problematic children who need an intensive and extensive study of their individual needs and capacities which it is not reasonable to expect from the class teacher.

As they come under her care they fall naturally into two large groups.

REASONS FOR REFERRING CHILDREN TO VISITING TEACHERS*

Specific Reasons for Referring Children	Total No. of V. T.'s naming this reason as occurring among their cases	Number of V. T.'s naming this reason as occurring first, second, third, etc. in order of frequency among their cases				
		1st	2nd	3rd	4th	5th
1. Maladjustments in scholarship:						
(a) Subnormality.....	50	11	6	26	7	..
(b) Retardation.....	49	11	31	5	2	..
(c) Deficiency in lessons....	48	29	10	8	1	..
(d) Precocity.....	34	1	2	8	23	..
2. Adverse Home Conditions:						
(a) Poverty.....	48	26	14	4	3	1
(b) Neglect.....	47	17	19	8	3	0
(c) Improper guardianship...	39	7	8	16	5	3
(d) Immorality.....	32	0	5	8	6	13
(e) Cruelty.....	31	0	1	6	14	10
3. Misconduct:						
(a) In school.....	45	33	4	8	..	..
(b) Out of school.....	41	10	20	11	..	..
(c) Involving morals.....	38	6	16	16	..	..
4. Irregular Attendance:						
(a) Suspicious absence.....	42	17	13	12	..	..
(b) Due to home conditions	38	20	15	3	..	..
(c) Half-days absence.....	37	9	13	15	..	..

* "The Visiting Teacher in the United States," June, 1921. P. 25.

Lateness and physical condition were also given among other general reasons for referring cases.

First, there are those demanding a more thorough knowledge and understanding of the child's personality, and of the conditions under which he lives, so that the school may more intelligently meet his needs. Second, there are those needing some definite social adjustments such as a change in home conditions, treatment for physical disability, opportunity or wholesome activity.

THE APPROACH OF THE VISITING TEACHER

To meet the needs of either group, the visiting teacher's first object is to establish friendly relations with the child and the family, and to get what light she can on the child's problem. Through conversation with the mother or other members of his family, through informal, friendly interviews with the child at home or school, through observation of him in his class and at play, she finds out the important facts about his heredity, his early history experience, his home life, his attitude toward school, his play and companions, his interests and ambitions, his dislikes and his difficulties. From these she tries to discover the cause of the child's trouble and forms a plan of correction.

Sometimes the solution of the child's problem involves long and painstaking change of attitude on the part of the family toward the child. It may require a change of régime, a change from harsh to wise disciplining, increased supervision, change of diet and hours of sleeping, an increased interest in his success or failure at school. Frequently the desired result is effected by changing the child's attitude toward his own problem, through explanation of his conduct and its consequences, through encouragement and supervision, through substitution of wholesome activities for harmful, as, for instance, some stimulating form of ath-

letics to take the place of the excitement of picking pockets, or stealing junk.

COÖPERATION WITH OTHER AGENCIES

Many times the visiting teacher calls in the aid of a social organization. The lists used by visiting teachers in various parts of the country show considerable similarity. Practically all are assisted in their work by family agencies, employment bureaus, nurseries, child protective associations, probation officers and Big Brothers, recreation and playgrounds, libraries, settlement clubs, medical and psychological clinics.

Of great importance also are the adjustments made in the school. When the school sees what the actual situation is and becomes aware of the real need of the child, it can often modify requirements to the newly seen limitations: a change of class, a transfer to a special school, a shifting of emphasis from one phase of school work to another, a new approach, a closer connection of the school work with the child's outside interests. The visiting teacher constantly coöperates with the various departments of the school system and when the situation requires the service of school nurse, vocational counselor or Child Study Department, she refers the child to that particular agency.

Many times, as all case workers will anticipate, the satisfactory outcome involves the combined help of family, school and social agencies as well as the re-direction of the child's interests and energy, as the following case will illustrate:

William's teacher and parents made almost simultaneous complaints at the principal's office. The latter complained that the boy stayed out late at night, hanging on the street corners with "loafers," that he was disobedient, that he used the money given him to buy the baby's milk for cigarettes and for gambling; the teacher said

that he was doing nothing in class but making trouble, that he "wasn't interested in a blessed thing." The parents wanted to have him "put away," and the teacher wished to have him "demoted until he learned to behave."

The visiting teacher found William a tall, overgrown, awkward boy, all arms and legs, who felt as big as a man, and had no feeling but resentment against the school for refusing to give him his working papers so that he "could go to work like a man." He was in a lower grade than most boys of his age because he had come to America only a few years before. Because he had to "stay in school with the kids," he took it out on the teacher. He neglected his lessons, bothered the other boys and was a constant drag on the class. He carried his grudge out from school and tried to do all the grown-up things he could think of, and cultivated the acquaintance of the older group of "loafers." His road was leading down-hill precipitately.

The visiting teacher explained the working paper situation to the boy, found out the kind of work he wished to go into, showed him the advantage for that trade of further education, and made him see that his recent conduct had been babyish rather than manly. The teacher, of course, gave him a new start, and the parents were made to realize that the boy needed wholesome recreation and association with older boys. Arrangements were made for him to join an athletic club at a nearby settlement where he was tried out in a position of responsibility which seemed to him worthy of his age and mettle.

William's remaining seven months of school were profitable to him and not a drawback to his classmates. When he left school, he had lost the grudge and had gained a feeling of fair play and loyalty. His relation to his parents was helpful, his friends were the kind of which they approved, and his conduct no longer a source of worry.

GROWTH OF THE MOVEMENT

The first visiting teachers began work in the year 1906-1907 in New York, Boston and Hartford, Connecti-

cut. In these cities, and later in other places, as has frequently happened in other educational experiments, the impulse came from outside the school system. Private organizations—in Boston, settlements and civic organizations; in New York, settlements and the Public Education Association; in Hartford, the director of the Psychological Laboratory—saw the need of providing a specially equipped worker to help the schools, and developed and privately maintained the work until the school board became convinced of its value and incorporated it as part of the school system. In other cities, like Rochester and Mt. Vernon, New York, and Cleveland, Ohio, the work was introduced directly by the board of education. At present in all but four cities the work is part of the city public school system. The movement has grown until at present the work has been extended to twenty-nine cities in fifteen states. In some of these "school visitor" or a similar term is used instead of visiting teacher.

In 1919 the National Association of Visiting Teachers and Home and School Visitors was organized. It plans, through interchange of experience and study of methods and common problems, to develop standards of work among its professional members, and through publications and the interest of its associate members, to promote the development of the work and to assist those endeavoring to establish it in new communities.

It plans to hold an annual conference meeting alternately with the National Conference of Social Work and the National Education Association. It has recently made a survey of the work of the visiting teacher in this country, a report of which has been published by the Public Education Association of New York, under the title, "The Visiting Teacher in the United States."

Although in various places the work has differed in origin, some cities having approached it from the standpoint of community welfare and child welfare, others from that of school efficiency, and although the character of the work has naturally been modified by the original impulse and by local conditions, yet it has developed along comparatively similar lines in all places, and certain definite standards have evolved.

METHODS OF WORK

The majority of cities have adopted as the most satisfactory method, the assignment of a visiting teacher to a single school or to two or three small neighboring schools. This enables her to become identified with the interests of the school and neighborhood, and better to act as representative and interpreter of one to the other. As has been pointed out, studying the neighborhood, knowing its resources, its lacks and potentialities, its traditions, ambitions and dangers, is an essential part of the visiting teacher's work, while, as a member of the school staff, she is of course familiar with the school's facilities and possibilities.

When a visiting teacher works on the whole-city plan, she usually calls at a school on the request of the principal. When she is assigned to one school, as a rule she has daily office hours, and where her work covers several schools, she usually holds office hours at the school where her major work lies, and visits the others less regularly. The office hours are uniformly found to be of great advantage, and an office where she can see children and parents alone and hold conferences with teachers and social workers, is considered essential. Usually the visiting teacher's office is in the school building so that parents and children and teachers may find easy access to it.

In most cities the visiting teacher's

hours approximate the school day, though they cannot correspond exactly, for the nature of the work makes necessary calls at night, in the early morning, or at other irregular times, in order to find working parents or the family group at home, or to observe the neighborhood at night that she may find out important facts about the recreation and other phases of the neighborhood life.

Beyond the office hours it is hard to outline the visiting teacher's day. She has no fixed schedule or procedure. Her time has to be free to meet emergencies that constantly arise. However, part of almost every day is spent in school, conferring with the teachers about the new cases referred to her; finding out the facts of the present situation from the child's previous school history and his teacher's observations; observing certain children in their classes; hearing from the teachers about the progress of others, or the results of a new plan which may recently have been worked out together by visiting teacher and class teacher in the light of personal environmental facts which the visiting teacher has brought to the teacher's knowledge. "Reporting back" to the school and to the teacher directly the "conditions found," constitutes a very important part of every visiting teacher's work. As soon as the school's view of the child has been supplemented to include the background, there results almost immediately, a change of perspective in which factors which before loomed large seem less dominating. Further, the completion of the picture serves to individualize the child, however large the class, and "to individualize a child means seeing what he needs and trying to supply it."

A large part of the visiting teacher's day is spent in calling at the homes of the children. Sometimes the visits

are made during school hours to talk over serious problems with the mother when she is alone and comparatively undisturbed, especially such problems as might involve criticism of the family's attitude toward the child or the school. Other times, the visits are made after school so that matters may be "talked out" with mother and child and, again, at night or holidays, to find working parents or the whole family at home.

In the homes the visiting teacher frequently assumes the rôle of interpreter, explaining away misunderstanding about school requirements, interpreting the school's aims and demands and the child's needs. When these are realized, the parents give their coöperation to the school with a quickened sense of responsibility and a clearer vision of their duty. Many times the visiting teacher finds herself faced with the task of giving, in the simplest possible form, lessons in habit formation and child psychology. She has frequently to interpret to the children the attitude of their conservative parents.

Visits are also made to playgrounds and other gathering places to observe the child at play and with his mates, or to get better acquainted with him or his "gang." Frequently, though not daily, the visiting teacher confers with social agencies to work out plans for individual children or for families when the family situation is the limiting factor in the child's problem. It is the policy of the visiting teacher almost invariably to refer to social agencies all cases requiring their special assistance. She does not then close the case, but works coöperatively with the agency, keeping track of the child's school work and development and coördinating the work of the school and social agency. Much can be accomplished by close coördinating of the social agency and the school, if one has as an aim the securing of maximum

educational value for the child out of the family or special situation.

The following case shows how, out of a bad family situation, real educational capital was made for a head-strong, irresponsible girl of fourteen who hated school and thought she wished to go to work to help her family. Knowing the reaction of the home situation on the girl's school life, the visiting teacher worked out a special plan with the family agency to which she had referred the family. She advised that the money required for the family budget be paid in the form of a weekly scholarship to the girl. The conditions stipulated were that she attend school regularly and keep a budget. She was transferred to a special class and given a special course providing an unusual amount of household training—the one school subject which seemed to her to serve any useful purpose. The personal interest of the domestic science teacher was enlisted in the girl's home situation, and she not only advised about the budget but encouraged the girl to make the most of her scanty home furnishings. A tutor was provided to help with the academic subjects. Through this weekly-payment plan the girl was made a partner in the family situation, and her sense of responsibility developed. Her budget book served as the most effective arithmetic text book she had ever used. Incidentally, she learned much about food values and purchasing.

FOLLOWING UP CASES

"How long are cases followed up" is a question frequently asked. No definite time can be given: but as a rule, until the situation for which the child was referred has been corrected, or until the child seems to be sufficiently adjusted at school and home to warrant thinking that he can more than hold his own with the ordinary supervision

of the family or the social agency with which he has been connected. As a matter of fact, it is very difficult for a visiting teacher really to close a case, for she invariably retains her interest in the children as long as they remain in school, and is frequently consulted about situations as they come up.

All visiting teachers keep records of their cases. The majority use a printed form designed to take a minimum amount of time and to record those items which will be of service to the school in its treatment of the child. The items usually noted are: reasons why the child was referred; significant facts about his previous as well as current school history, his home conditions and environment, his interests and characteristics; the action taken by the visiting teacher in the home and the school, with recreational relief or other social agencies, and an estimate of the results of the case and of the fundamental trouble.

"Through individuals to the group is the approach of the visiting teacher," and as the result of her knowledge, derived from case work, new types of classes have been organized, school clubs, or other means to make the school fit the newly discovered need. Study rooms have been opened, school recreation centers organized; parents' clubs, courses in domestic training, special trade courses, school lunches and other extensions have been started as a result of the visiting teacher's view of the neighborhood. In this way her work becomes of value to the school as a whole. She acts as a scout bringing back a more definite knowledge of the lacks in the neighborhood, educational, social and moral, and of newer demands on the school that have arisen because of changing social and industrial conditions. This relation accords with the ideas of modern educators who believe that the connection between the school

and the community life cannot be too closely integrated.

On the other hand, the visiting teacher's acquaintance with the families and the neighborhood brings about social results. Through her work, various communities have been stimulated to provide scholarship funds, nurseries, community houses, homes for neglected children and other social activities. Hidden danger spots are not infrequently brought to her attention by parents who have not known what to do about the situation or have been afraid to report to the proper agency or official. In this way the work assumes an additional preventive aspect, and results in such improvements as better policing and lighting of parks, better provision for playgrounds, closing of improper movies, etc., checking of traffic in drugs to minors and the removal of similar insidious conditions.

The visiting teacher's position as a member of the school staff makes for certain advantages. She gets in touch with cases at an earlier stage than would an outsider. Teachers and parents consult her about suspicious cases which they would not feel justified in referring to a social agency. As representative of the school, the visiting teacher is free from the suggestion of philanthropy, and of all visitors she has, perhaps, the most natural approach to the home, going as she does in the interests of the child. It is a very rare thing for a visiting teacher to experience an unpleasant reception. Further, she is in a position to follow the child in school from year to year. Where the home carries a serious handicap, she may anticipate the difficulties of the younger children, help them avoid the false starts made by the older brother or sister, and also assist the school to reinforce the children against the inroads of the family handicap.

Her presence in the school means not

only that she can follow her cases from day to day at critical periods, but also that she is at hand whenever an emergency comes up in the principal's office that demands the advice of a social worker or of someone familiar with the social conditions and resources of the neighborhood. Thereby, too, loss of time is avoided in getting the case started. Her work serves to co-ordinate all the social forces of the school and community. Further, as a teacher and member of the school force, she naturally looks for the educational possibilities of every situation, and on the basis of her experience with numbers of cases she is in a position to make suggestions for changes or extensions of the school work, as has already been pointed out.

THE VISITING TEACHER'S PREPARATION

This educational possibility brings up the point of the preparation of the visiting teacher. Answers to a questionnaire sent out by the National Association of Visiting Teachers show that a majority of visiting teachers have had both teaching experience and social work. Almost all have had special training or experience in the latter. They have almost uniformly supplemented their previous experience with courses in child psychology and other branches of psychology or mental hygiene. This need has been particularly felt because many of the special school problems which gravitate toward the visiting teacher require special analysis, insight and patient understanding of behavior problems. Ability to speak a foreign language is a great advantage. A visiting teacher needs to know the nationalities of the children's parents, their customs, traditions and interests, so that she

may have a sympathetic approach.

The work has passed the experimental stage, but it is still growing in scope and method. Up to the present it has been largely concerned with maladjusted children. In certain cities, however, visiting teachers have co-operated in an attempt to get in touch with the school children before they become problems, through early study of their ability and social backgrounds.

The results of this work cannot be measured entirely in statistics. Studies made from time to time show that a large percentage of the children referred to visiting teachers have improved in conduct, attendance and scholarship. All the results, however, are not reported. Frequently they are cumulative: mothers who have been shown the reason for one child's failure remember the mistake to the profit of their younger children. Those who have studied the field of child welfare and who are turning to the school as the logical place for the detection and study of child maladjustments see in the growth of this work, great promise. They look forward to the time when each child shall be dealt with as an individual; when he will be properly graded, his task fitted to his capacity. They anticipate the time when all the forces at work upon the child may be harnessed to pull toward one goal. Then, as a natural outcome, it is hoped that retardation will become negligible; nervousness and mental disorders will be guarded against; juvenile delinquency will be reduced to a minimum, and industrial efficiency will be greatly lessened, because each child will go out, not prematurely and handicapped by inadequate training or the sense and habit of failure, but equipped and able to realize his potentialities.

The Relation of the Teacher and the Social Worker

By ANNA BEACH PRATT

Director, the White-Williams Foundation

IN the laboratory experiments of these days where each factor and all the conditions are controlled, it is not such a difficult matter to analyze and evaluate results; but in experiments with human beings where the factors have not yet been clearly differentiated by science and where the conditions are only partially controlled, an analysis of results may be interpreted in a different way by each observer. When there is added to this difficulty, the brief time of four years for an experiment that should extend over the child's entire school life before an ultimate interpretation of any part of it is attempted, the reader will understand how tentative must be the findings of this paper.

It was not primarily to study the relation of the social worker to the teacher that the experiment was begun. Indeed, the teacher was not even a part of the experiment when the century old Magdalen Society of Philadelphia, now the White-Williams Foundation, decided that *forming* was more profitable than *reforming*, and so started out to seek the girls who were leaving school for industry before they were ready to meet the problems of store or factory.

By guiding the girl to the work adapted to her ability; by going to the factory with her in a figurative, and sometimes in a literal, sense; by understanding her home and her neighborhood background and by helping her to secure what she needed to round out her life in and out of the factory, it was hoped to keep her from the necessity of a Magdalen Home.

One of the first facts disclosed by this undertaking, was that many of the children were going to work for other reasons than poverty. Often some

foolish reason was making them give up school.

In 1920 the White-Williams counselors in the Junior Employment Service of the Board of Public Education interviewed 908 of the 10,674 children who came that year to the Board of Public Education for general working certificates. Forty-seven per cent of these did not want to go on with their school work. They gave as reasons: "I was 'left down'"; "I didn't like arithmetic"; "I was too tall for the other girls in the room," etc. Many of these difficulties might have been adjusted if someone could have made plans with the children while they were still in school.

Even before these statistics were gathered, the counselor's work with the individual child had shown her that the children she knew were fitted neither for citizenship nor for industry, and that probably in this unfitness might be found many of the causes for future delinquency. To reach these causes, it would be necessary to go farther back into the child's life. Accordingly, as an experiment, counselors were placed in two public schools whose work extended from the fifth through the eighth grade.

The coöperation of various social agencies in the city was enlisted until last year the resources of two hundred and thirty-six different agencies were brought to the help of the school children in whom the counselors were interested. Teachers are beginning to turn to these workers when children do not respond to teaching. After the work had been organized for the boys as well as for the girls, a teacher remarked, "We don't seem to have disciplinary

problems in our room since you came to us." Yet almost in the same breath she told of a very naughty boy. "Your counselor visited the home," she said, "and found Jim sleeping on four chairs; he came to school without breakfast and had to steal food to keep soul and body together." He was to her mind not a disciplinary case, but a living boy with problems to solve far beyond his years and she was ready to help him solve them.

THE FACTORS COMMON TO TEACHING AND SOCIAL WORK

So much for the background of an attempt to relate social worker and teacher. We are now ready to consider those factors, found in the school, that demand the services of a social worker, and to see how these factors enter into the work of the teacher and so bring together the teacher and the social worker. The social worker's problem is that of unadjusted social relationships. Are these to be found in any number in the schools, or are those which we have reviewed in the work of the White-Williams Foundation, isolated incidents?

The statistical report of the Philadelphia Board of Public Education for 1920 gave a school population of 296,573, of which 42.7 per cent were of foreign parentage. There were 6,800 truants; 15 per cent of the children were "left down"; 7,834 children were three or more years behind the so-called normal grade; 2,109 were in special classes for backward children and 536 were in disciplinary classes.

The Junior Employment Service was able to secure 347 school records of the 908 in the study to which reference has already been made. These showed that 283, or 81 per cent, had failed one or more times to pass their school grade. This would seem to indicate that many of the children who said that they did

not like school, disliked it because they were unsuccessful in the work which they were given to do. If the percentage of failure for the 347 children held good for the entire 10,000, and it is probable that it did, since the 347 were not a selected group, it is evident not only that many of the children in school are not properly related to the school, as indicated by the figures of the report, but also that many of those who leave school, do so for this same reason.

One of the first things which impressed the counselors when they entered the school system, was the enormous number of children with whom it was dealing. They knew it in figures, but when they began to study Mary, Jennie, and the others as individuals, the numbers became appalling. Looked at from one angle, this vast army whom we educate is the glory of our public school system. It is certainly unique, for never before in the history of the world were there gathered together children from all nationalities on the face of the earth, to receive a common education. On the other hand, this same number of children becomes a curse; by blurring the teacher's vision, it prevents him from seeing the individual child. There is nobody interested in the "whole Johnnie," who used to be known because there were not so many of him.

THE TWENTIETH CENTURY DEVELOPMENT OF THESE FACTORS

Often we blame the schools for this neglect, but they are not entirely responsible since they have not had the time to catch up with the rapid growth of our country. Educators could scarcely foresee this vast increase in our population when they secured the legislation that has caused so many of our problems—the compulsory education law.

Such a law in the early part of the

nineteenth century would not have complicated our school problem as it has today, because it would not have had to deal with the foreign language groups or with industrial and city problems. The seventeenth century immigrants of New England were eager that their children should learn to read and write, but too many of the later immigrants do not hold "book learning" in the same esteem, especially in a foreign tongue, because it seems to have no connection with home life or with earning a living; and not only the foreign parents but even the children of old American stock have become impatient with this book knowledge.

When one considers, also, that only a century and a quarter ago, most of our population was rural, that Philadelphia with its 60,000 inhabitants was then the largest city in the United States, that within this comparatively short space of time our great industrial centers have opened up and that most of the occupations of homemaking have necessarily been transferred to the factory—then it becomes apparent that both the parent and the teacher must unite in offering to the child a worthy substitute for the old-time instructive home-tasks of spinning, weaving, carpentering and planning the construction of various complete articles for the household. Parents have been inclined to accept the ready-made existence of modern industrial life and are surprised to note the changes in the school curriculum which teachers must make in order to meet the constantly decreasing opportunities of the home. They cannot see why their boy needs an education different from that which was good enough for them. In the old days in the country, these parents had known the teacher who "boarded 'round." "Backgrounds and foregrounds" of the child's life were open to those teachers.

We have heard of the wonderful results secured by the teacher in the "little red school house." Was it not this understanding of his children, born of intimate personal knowledge, and the co-operation of the parents that made it possible for him to accomplish so much?

In the sameway the teacher of today, like the parent, has taken for granted the intimate conditions which touch him. He has tried to teach the foreign child in the same way that he teaches the American, and too often he has applied to both the "system of education" which he has learned, regardless of the need of the child or the changing industrial conditions. He may know that he has children of five or six nationalities in his room, but he may not know the history and the customs of those nationalities or anything about the present homes of these children. He sees the parents only when they come to the school to complain and he is called to the principal's office to hear such complaint.

A teacher one day was trying to make an Italian child understand the word "up." "Up, up," she said. "Where you go when you sleep." The child kept saying "Down," and the teacher thought him stubborn, until she discovered that his family slept in the basement.

HOW TEACHERS ARE DEALING WITH THESE FACTORS

In the face of these tremendous problems the school is not lying down but is going forward to meet them. In 1899, in Philadelphia, special classes for backward children were first opened and the Statistical Report for 1920 gives 103 centers for this work. Last year a separate school building was opened under the direction of a psychologist employed in the fall of 1920; more re-

cently, disciplinary classes were started, and three years ago a disciplinary school was opened. Other schools of the kind are planned for this year. The Statistical Report gives, in addition, a goodly number of classes for crippled, tubercular, anemic, partial sighted and non-English-speaking children.

The grading of the regular schools is being reviewed. Last year our psychologist found in one fifth grade, children whose mental ages ranged from eight to fifteen years, and this same room contained children with ability of third, fourth, fifth, sixth and seventh grades. When the school is large enough to permit several divisions of one class, the new method contemplates the grading of children according to mental age, correlated with chronological. For the hand-minded children, new opportunities are being offered in the junior high school. In Philadelphia, the first school of this kind has proved such a success that the Board of Public Education is organizing three additional junior high schools this fall. For those who are interested in trades, there are the new trade school for girls and the older trade departments for boys in the high schools.

To aid in this group handling of children and to meet the maladjusted relationships, the schools are attempting to study the individual child. The psychologist is examining children who do not come up to the grade requirements, and is planning the groups to fit their needs. In the Philadelphia schools last year the medical inspectors found, in round numbers, 180,000 physical defects, but they were able to secure the treatment of only 81,000, because of the small number of nurses for follow-up work. An effort is being made to increase this number.¹

CAN THE TEACHER HANDLE THE SITUATION WITHOUT THE SOCIAL WORKER?

Before we take up the problem of truancy which has been less intimately part of the school work, it would now seem a fair question to ask whether these activities in the school which have just been outlined are not sufficient to adjust the relations between child and teacher, so that no other aid is needed.

In reviewing the remedies, the first criticism naturally is that there are not enough of them to estimate their value. Acknowledging this criticism, but for the moment assuming that the schools have funds to secure all the doctors needed to examine carefully each child, all the nurses to visit every home and instruct in hygiene as well as to urge the correction of defects, all the psychologists to grade children according to mental age correlated with chronological, all the psychiatrists to care for emotional maladjustments, and all the special classes and special schools for every kind of child, would there be any place for a social worker? The experiment of the White-Williams Foundation is showing that in the schools having these activities, the teachers are most desirous of securing social workers.

In 1919, Dr. J. H. Leuba of the Department of Psychology at Bryn Mawr College determined upon a study of the boys in Philadelphia's disciplinary school. He came to the Foundation for a social worker to help him. When the study was concluded, and both agencies withdrew, the principal urged the White-Williams counselor to continue her visits to the homes, saying that since he had known that kind of help, he felt that it was an essential part of the school work.

When the psychologist of the Department of Education entered the

¹ In 1921, the Board of Education granted 17 new supervisors and inspectors.

school system, she also felt that a social worker was essential in dealing with the backward children in the centers which she was opening, and the White-Williams Foundation gave her a counselor. At the same time, a principal of one of the most progressive high schools in Philadelphia who had secured the services of a psychologist, asked the Foundation for someone to visit the homes and bring to the psychologist the social histories of the children. She said, "We have almost no social problems but we need to know about the child's home life, to diagnose properly his mental ability and to plan for his future." After less than six months of visiting in the homes by a counselor, she confessed, "I had no idea that there were so many social problems confronting our children, and I did not realize what a help the knowledge of the home would bring to our teachers."

These instances would indicate not only that there is room for a social worker in the public schools, but that these new activities are making the need of such a worker more apparent.

IS THE TEACHER'S NEED OF A SOCIAL WORKER COMPARABLE TO THE DOCTOR'S NEED?

Little more than ten years ago, Dr. Richard C. Cabot discovered that the hospitals needed social workers. Just as educators are finding "repeaters" in our schools who have cost the schools many thousand dollars, so they found them in the hospitals. Money and space were being wasted, as they are in the schools, and the patients' time, often very precious to a working man or woman, was being consumed because no one with trained vision saw that the patient could continue with the right treatment in his home environment. The "backgrounds of hospital work"²

as Dr. Cabot called them, were being neglected. In the home, the nurse's experienced eye saw Sarah's thin cheeks and hollow chest; her ear was alert to the mother's peculiar cough; but these same senses, untrained in the social field, could not detect the causes of distress which controlled the family situation. This visitor did not realize that possibly it was the father who must be given fresh courage—someone must help him find a job,—that Katie was bound to run wild, if her parents allowed her no recreation; that John would never be able to do his share towards the family support later on, unless someone got him off to school regularly and on time now.

Today, in private practice, the physician, the psychologist and the psychiatrist all want to know as much as possible about these social conditions before they will make a diagnosis; and in the schools, when there is time to give careful examinations, these specialists will increasingly ask for just this information. The teacher cannot give it to them. The nature of her problem has always been considered one of group handling and her whole course of training has been in group work. In practice it is impossible for her to visit the homes of from thirty to sixty children each semester and, if she could, on account of previous training her eye, like the nurse's, would not discover the facts which these specialists need.

Like them, and even more than they, she, too, must have this information and she must have it coördinated with theirs in order to see the "whole child." In the higher grades, where the work is departmental, and the teacher may all day long instruct different classes in arithmetic, she cannot individualize her pupils, and they become so many little heads, which are too often eager for the knowledge of a new kind of mischief, but not of decimals and frac-

² *Social Service and the Art of Healing*—by Richard C. Cabot, 1909.

tions. To the doctor, these same children are diseased throats, eyes, ears, etc.; to the psychologist, they are I.Q.'s ranging from 40 to 140. Frequently, these workers may not know the other's estimate of the child.

This problem of relationships and their coördination is distinctly that of the social worker. She cannot and she should not take the place of any of these specialists, but she can bring together their findings and, adding to this what she discovers of the child as a social being, she can make him an interesting, living personality to those who before saw only part of his mechanism. Especially must this be done for the teacher who, as she gets the vision, will see its value so plainly that she will want to know something herself of social case work. Already in the progressive normal schools hygiene and experimental psychology are being introduced, not that the teacher may diagnose disease or give mental tests, but that she may recognize the conditions which should be referred to doctor and psychologist. In the same way she must have training in social case work that she may be able to know which children need immediate social treatment and which she can herself help through changed methods of teaching.

THE ATTENDANCE OFFICER'S RELATION TO UNADJUSTED SCHOOL CONDITIONS

The problem of truancy has been left until the last, since, in meeting it, the school has a worker who does visit the home and in whom there are unusual possibilities for adjusting relationships. Because the Bureau of Compulsory Education of Philadelphia offered its offices as a laboratory when the White-Williams Foundation entered the school system, the truant problem was the first which was brought

to the attention of this organization.

In 1911, the department was re-organized by one of Philadelphia's school principals. He introduced modern school methods and so transformed its work that today it is considered one of the most progressive departments in the country, in spite of the fact that until 1921 there was only one attendance officer for every 8,000 of our population.³ Here again, there is the curse of numbers and no one now realizes this better than the chief of the department. He sees that truancy is not a unit character to be met by compulsion alone, but that the cause in each case must be found and treated. Last year, he helped to organize for his attendance officers a class in social case work, and by experimenting with social workers as attendance officers, he discovered how little real social work could be done if each worker must make from 30 to 60 visits a day with no continuous record of the child in his possession. Earlier he had assigned an attendance officer to one school with excellent results.

It has been suggested⁴ that "schools, juvenile courts, corrective institutions, and child welfare agencies combine, simplify and improve" and that the new organization work through the schools. The chief of the Philadelphia Bureau of Compulsory Education would make a beginning by requiring that attendance officers be trained social workers, qualified for teaching. With the exception of ten or twelve to prosecute when necessary, he would change the name of attendance officer because of the police power which the present name implies; he would increase the number of officers so that there may be one in each school to work with the

³ Last year, the Board of Education allowed 6 new officers.

⁴ "That Child" by Henrietta S. Additon and Neva R. Deardorff, *Survey*, May 3, 1919.

teachers, especially in the early grades where they may reach the causes of truancy before they become acute. As these counselors had time, they would take not only the children who are running away from school, but also those who are causing the teachers any trouble, since an absent mind is as impossible to educate as an absent body and may need more careful attention. Besides, when interest has gone, the body soon leaves too, and such a difficulty may be truancy in its incipient stage. At the end of eight years, when such an officer has grown up with the children and has secured the coöperation of the teachers and the help of the school office, there is every reason to believe that the problem of truancy will be practically solved.

THE LINK BETWEEN PARENT AND TEACHER

Such a plan as this would not require great added expense in proportion to the whole school budget and is not the visionary dream of someone who does not know the schools; it has been outlined by a practical school man of large experience. It would also, to his mind, be the natural avenue for the introduction of social workers into the schools. In factories, large prices are paid for efficiency methods and these are adopted without question after it has been proved that, in the long run, money can be saved. In the school system, the methods proposed would probably not save money, but, far more, they would save manhood and womanhood, the manhood and womanhood of the old days of which we read, when the parent and the teacher worked hand in hand for the child. We should again link them together; but we cannot go backward. There must be a new link in the chain to unite the broken parts and experiment is teaching us that this link is the social worker. She will connect with

the home not only the teachers, but also all the necessary forces of school and community for the help of the child.

SUMMARY

To summarize what has been said: In the early days of our country, the center of the child's educational life was in the home. Parents who were obliged to report from time to time whether they were training their children "in learning and labor and other employments profitable to the Commonwealth," unconsciously so co-ordinated the child's physical, mental, emotional, social and vocational life that the "whole child" was understood and educated. As the center of his education gradually shifted to the school, and as specialists in addition to the teacher began to deal with the child, each one knew only a part of him and no one knew his background.

Once more, education is demanding the knowledge of the "whole child" in his environment before attempting to teach him. Today, the one coördinator of this "whole child" in home and school environment is the social worker. When all teachers have understanding of social case work, they will give this worker the welcome which is now accorded to her by those of their own number who already understand, and by socially minded physicians, psychiatrists and psychologists.

At present, it looks as if attendance departments would be the first to recognize the need of a social worker, but until some department of the school does see this need, the social workers in private organizations can do little more than present the picture of a few "whole children" to the school and to the community, so that popular opinion may recognize the value of the individual with his unknown potential power and give him, in the school, the opportunity to develop this power to the utmost.

Aid to Mothers With Dependent Children

By EMMA O. LUNDBERG

Director, Social Service Division, Children's Bureau, United States Department of Labor

WHAT has been popularly known as the "mothers' pension movement" had its origin at a time marked by reaction against old forms of public relief and the institutional care of dependent children. The White House Conference, called by President Roosevelt in 1909, focused attention on the desirability of placing children, wherever possible, in family homes instead of in institutions. However, its fundamental proposition was that children should not be deprived of home care except for urgent and compelling reasons, and that "children of parents of worthy character, and children of reasonably efficient and deserving mothers who are without support of the normal breadwinner, should, as a rule, be kept with their parents, such aid being given as may be necessary to maintain suitable homes for the rearing of children." However, the ban which rested on public relief at that time was indicated by the suggestion in the conclusions of the conference that such aid to mothers should be given from private, not from public funds.

Accordingly when the earliest bills were proposed, beginning in 1911, the policy of a special form of public relief for dependent children in their own homes met with a storm of protest from the advocates of private relief. But the wave of sentiment for such public provision as would make unnecessary the removal of children from their homes because of poverty, grew increasingly, and by 1921 forty states and Alaska and Hawaii, had embodied this idea in their laws.

Not all, however, have translated the legal theory into practice. It may fairly be said that the principle of home care for dependent children is generally accepted in this country, but the ten years' experiment does not by any means indicate that the problem has been met. In two states laws have been inoperative because of defects; in several others, practically no use has been made of the legal provision; and in many states where splendid work has been done in some localities, in other communities the intent of the law has been ignored or the provisions made have been so inadequate as to be of little avail.

BEGINNINGS OF THE MOTHERS' AID MOVEMENT

Before mothers' pension laws were enacted a number of states and localities had recognized the wisdom of the principle and had applied it in a limited way. As early as 1906, the juvenile courts of some counties of California granted county aid to children in their own homes; later, in 1911, the state began to reimburse counties for such aid given to half orphans. An Oklahoma law of 1908 provided for "school scholarships" to be paid by counties upon recommendation of the school authorities, to children whose widowed mothers needed their earnings. A Michigan law of 1911 also authorized payment from school funds to enable children of indigent parents to attend school. Through a resolution by the County Board of Milwaukee County, Wisconsin, in 1912, such aid was given through the juvenile court. In New

Jersey, aid to dependent children in their homes had been granted from county funds prior to 1913. The first concrete legal provision of aid to mothers of dependent children was passed by the Missouri legislature in 1911, applying only to Jackson County (Kansas City) and later, in the same year, to the city of St. Louis. The first state-wide mothers' aid law was enacted in Illinois in 1911.

SPREAD OF LEGISLATION

After this definite beginning, the movement spread rapidly. In 1913, a total of eighteen states enacted mothers' pension or aid to mothers laws; these were California, Colorado, Idaho, Iowa, Massachusetts, Michigan, Minnesota, Nebraska, Nevada, New Hampshire, New Jersey, Ohio, Oregon, Pennsylvania, South Dakota, Utah, Washington and Wisconsin. In 1914, Arizona was added to the list; in 1915, Kansas, Montana, New York, North Dakota, Oklahoma, Tennessee, West Virginia and Wyoming—a total of eight states; and in 1916, Maryland. Six states—Arkansas, Delaware, Maine, Missouri (state-wide law), Texas and Vermont—and the territory of Alaska passed such laws in 1917; Virginia, in 1918, provided for allowances to widows. Connecticut, Florida and Hawaii were added in 1919, and during the same year in Indiana, an amendment to the Board of Children's Guardians law permitted aid from public funds to be given for children in their own homes. Louisiana passed a mothers' aid law in 1920, and, in 1921, the Constitutional Convention submitted such a measure as an amendment to the State Constitution.

The experimental character of much of this legislation, due largely to the haste with which the idea was adopted, is seen in the revisions and numerous amendments found necessary as the

laws were put into operation. The first Illinois act was completely revised in 1913, and in other states five of the 1913 laws were completely revised and eight others amended in 1915. Similar changes have been made in the later legislation, but the majority of these amendments have been for the purpose of improving the administration, making the application more inclusive and increasing the amount of the grant or of the total appropriation available. The earliest Arizona law was in 1916 declared unconstitutional, and another act passed in 1917 was also found to be unworkable; a new law was passed in 1921. Because of a defect in the appropriation section, the Maryland law of 1916 has been inoperative. In a few other states, while the validity of the laws has not been questioned, they have been largely ineffective because of failure to make the necessary funds available.

APPLICATION OF THE LAW

The central idea in the propaganda, and the most common inclusion in the earlier laws, was aid to widows. Gradually this conception has widened, until now only six states of the forty limit the grant to children of widows, though all states include widows directly or by implication. The first Illinois act was entitled "funds to parents act," and the law that followed shortly after in Colorado includes a parent, or parents, who because of poverty are unable to provide properly for a dependent child. In Illinois, however, revision has limited the application of the law to dependent children whose fathers are dead or totally incapacitated. In seventeen states children of deserted mothers may be granted aid, and in six states, children of divorced mothers. Families where the father is totally inca-

pacitated may be helped in eighteen states; fifteen states permit aid if the father is in an institution for the insane or is feeble-minded, and twenty states if the father is in a state penal institution. A few states gave assistance to relatives or guardians, other than parents, having custody of a dependent child. The whole trend appears to be toward giving the benefit of such aid to a larger group of children in their own homes. In Washington, the law is applicable to any "mothers who are needy"; in Maine and Massachusetts, to mothers with dependent children; in New Hampshire, to mothers dependent on their own efforts to support their children; and in North Dakota, to any woman who has one or more children dependent on her for support. Michigan and Nebraska specifically include unmarried mothers, while in some other states the law can be so applied.

There is the same lack of uniformity in the residence requirements in the different states. Except for five states in which there are no stated requirements, these vary from one year in the county to citizenship in the United States with five years' residence in the state and three years' in the county. Citizenship in the United States is included in the requirements of only eight states.

In general, the age—by law or in practical application—at which a child is given this form of aid coincides with the minimum age at which employment is permitted under the law, although in three-fourths of the states aid may be granted after the child reaches 14 years of age. In only one state, West Virginia, the age limit is 13 years; in nine states grants may be made for children up to 14 years of age. Fifteen years is the maximum in seven states and 16 years in nineteen states. Indiana permits aid up

to 16 years for boys and 17 years for girls. In Michigan grants may be made for children up to 17 years of age; Ohio and Vermont mention no age limits. In six of the nine states in which the maximum age is 14 years, there may be extension of the age in case of sickness or unusual conditions, or if the child should continue in school. In Louisiana the maximum age may be increased from 16 to 18 years in case of sickness or incapacity. Because of inadequate appropriations it is doubtful, however, if a very considerable number of children above the compulsory education age are beneficiaries of these acts.

CAUSES OF DEPENDENCY

Any attempt to analyze the character of the disabilities that cause families to become applicants for this form of public assistance, must take into account variations of practice, due largely to the inadequacy of the funds and, perhaps, in lesser degree, to the differences in administrative rulings in states and localities operating under apparently similar legal provisions. The distribution of the reported causes of dependency in a total of 9,194 cases of aid to mothers of dependent children is shown in Figure 1. The figures are for the states of Colorado, Massachusetts, Maine, Minnesota and Nebraska, in all of which the application of the law is very inclusive.

In view of the original emphasis on aid for children of widows, it is significant to note that families of widowed mothers represent three-fourths of the entire number. It is probably true that the percentages of families in which the father was incapacitated physically or mentally, or in which divorce, desertion or imprisonment of the father were the causes of dependency, are lower than they would be in actual fact if the limitation of funds

did not stand in the way. At any rate, the 25 per cent in which the death of the father was not the occasion for aid shows the necessity for a more general application of this form of assistance to children than was at first recognized.

The figures for two states, Michigan

of a total of almost 6,000 cases, 8 per cent were children who were orphans.

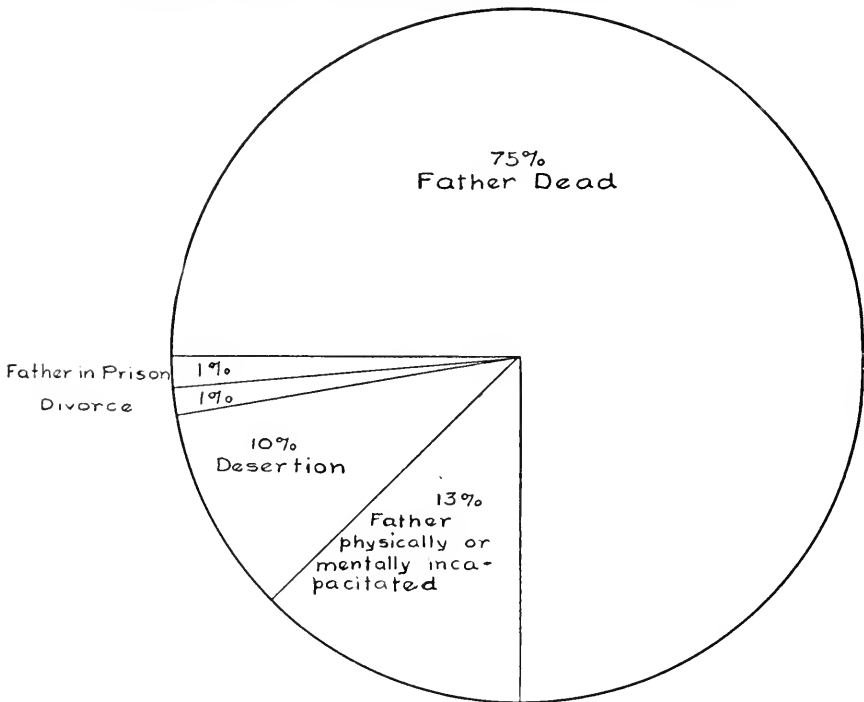
CHILDREN AIDED

Data on the number of children toward whose support in their own homes public grants are made, are available only to a limited extent.

FIGURE 1

CAUSES OF DEPENDENCY

Based on 9,194 Families Receiving Mothers' Pensions in 5 States.



and Wisconsin, that extend aid to still other groups than those mentioned above, are of interest as indicating the types of need that are still unmet in most states. In Michigan, aid may be given to unmarried mothers, and while it may be assumed that such aid was kept at a minimum, 1 per cent of almost 7,000 mothers were unmarried. In Wisconsin, aid may be given to grandparents or to others having the custody of a dependent child. Out

For a number of states and cities the proportion of children granted allowances to the total population under fifteen years of age, ranges from one-tenth of one per cent to 1.9 per cent. If similar conditions prevailed in the remaining states, it is estimated that the total number of children to receive such aid in the United States would approximate 200,000. If, on the other hand, the estimate were based on the proportion of children found to

be in need of such aid in the communities where this assistance seems to be given on a fairly adequate basis both as to inclusion and amount of grants, the total number of children in the United States for whom aid should be granted in their own homes would be closer to 350,000 or 400,000—and probably beyond even this estimate if all types of more or less permanent family disability were included. The situation that now appears to exist, in which there are proportionately almost twenty times as many families granted aid in one community as in another, probably does not imply a higher economic level in the former, but may instead indicate an absence of proper provision. Mothers' pension administration offers perhaps the most obvious arguments as to the futility, not to say actual detriment, of placing laws on the statute books but failing to make them practically effective through adequate appropriations and proper administration.

The ages of children for whom aid is granted are rarely compiled by the administrative agencies, though this would seem to be a very significant factor. In two states and a large city for which age figures were available, including 13,553 children, 34 per cent were under 6 years; 60 per cent, from 6 to 14 years, and 6 per cent, 14 and 15 years of age. Thus, one-third of the children were below school age, requiring the more constant attention of the mothers. The average number of children in the families aided appears in most states and localities to be about 3.5.

REASONS FOR DISCONTINUANCE OF AID

An analysis of the reasons for discontinuing aid, as given in the reports of six states and five counties containing large cities, for a total of 7,480 cases,

indicates to some extent the complexity of the problem, and the necessity for keeping constantly in touch with conditions in the home if the assistance intended for the children is to be well applied. In only 44 per cent of the cases was aid discontinued because it was no longer required; most frequently, no doubt, this meant that a child began to work, or that the mother's earnings increased or that relatives or others came to the assistance of the family. Too often the mother finds it impossible to maintain her family on the allowance granted, and elects to dispense with both the aid and the regulations that accompany it, undertaking employment that necessitates either neglecting the home or making provision for the care of the children elsewhere. In truth, because of the very common inadequacy of the aid, no reliable economic interpretation can be given these figures. The reason for discontinuance, reported as next in frequency, was the remarriage of the mother—16 per cent. In 11 per cent of the cases in which aid had been granted, it was later discontinued because the home was found unsatisfactory, the mother proved unfit to care for the children properly, or for a similar reason. In another 11 per cent the aid was discontinued because the mother or the child for whose benefit the grant was made had died, because the mother or the child was taken into an institution, the mother ceased maintaining a home, or the family left the county or state. In the states giving aid to families of fathers in prison or deserting, a small proportion were no longer aided because the fathers were released or had returned to their families.

INCREASE OF EXPENDITURES

When appropriations were first made for the aid of dependent chil-

dren in their homes, there was little actual knowledge in regard to the extent of the need to be met. As experience was gained, the funds available were increased. But a study of the situation in perhaps the majority of localities will show that the amounts appropriated for grants to mothers of dependent children are still far below what is needed to carry out the spirit of these laws. In states where there is some form of supervision by the state authorities, and in counties and cities where "case work" methods prevail, there is usually an effort to utilize the funds available in such a way that the families accepted for grants will receive the necessary amount of assistance, even though a considerable number of mothers with dependent children cannot be given aid. In one of our large cities the total state and county appropriation available for mothers' aid makes it possible to care fairly adequately for about one thousand families, leaving a waiting list that for the past two or three years has approximated eight hundred families who are under the terms of the law entitled to receive aid but who cannot be supplied. And this in spite of the fact that appropriations in this state and county have doubled and trebled during the past few years!

Figure 2 indicates the increase in expenditures over a five-year period as compared with the increase in the number of families aided during the same years. The five states represented are Massachusetts, Michigan, New Jersey, New York and Wisconsin. Their aggregate expenditures for mothers' pensions in 1920 reached a total of almost six and a half million dollars.

By 1920, as compared with the totals for 1916, the expenditures in these states had increased 186 per cent and the number of families, 101 per cent. The obvious conclusion is that the

earlier appropriations were found to be very insufficient for the needs of the families aided, and that as more funds became available, more adequate grants were made to the families under care. The data cannot be taken as criteria of either the amounts required or of the number of families eligible for and in need of this form of assistance.

INADEQUACY OF GRANTS

Amounts paid for the care of children in boarding homes by private child-caring agencies in 1920 approximately averaged \$4.50 a week per child; for three children, this would be approximately \$60 a month. For the states in which a legal allowance is specified, the maximum grants for three dependent children in their own home are as follows: \$19 to \$20, seven states; \$22 to \$29, nine states; \$30 to \$39, eight states; \$40 to \$49, four states; \$50 to \$55, four states.

The lack of uniformity and the apparent absence of the proper consideration of family needs for subsistence are indicated in the amounts permitted under the laws relating to mothers' aid in the state of Missouri. For Jackson County (Kansas City) the maximum legal allowance for a family with three children is \$20; for St. Louis, \$45; and for the state outside these two cities, \$32.

In boarding homes the family would necessarily have some other income; the families granted mothers' pensions are much less likely to have other resources. Yet the standard set in mothers' pension laws is approximately from one-third to two-thirds the amount found requisite by agencies for boarding children in family homes. Again it should be emphasized that even the inadequate maximum permitted by the terms of the law is seldom granted. Local economy

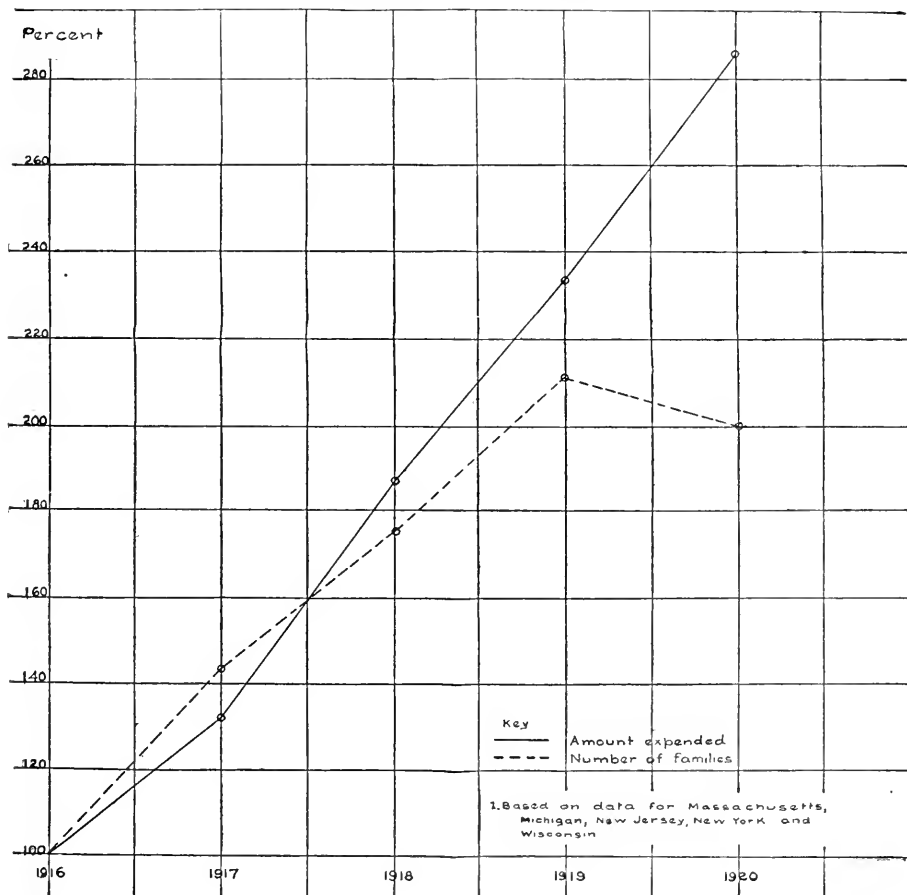
and inadequate appropriations set a minimum entirely insufficient for the proper maintenance and safeguarding of the children who are by this legislation recognized as being in special need of aid and protection by the state.

The more closely the administration of aid to dependent children in their own homes approximates the methods used in good "family case work," the more nearly does the allowance approach the needs of the family and the assistance conserve the wel-

fare of the children. Not infrequently the public funds known to be required must be supplemented by private charity or ordinary poor relief grants. Or, as seems to be the situation in a very considerable proportion of localities, the allowances must be eked out by the mothers' earnings. If proper arrangements can be made for the care and safeguarding of the children while the mother is away from the home, this may work out satisfactorily. But it requires very careful attention to

FIGURE 2

COMPARATIVE INCREASE IN EXPENDITURES FOR MOTHERS' AID AND IN NUMBER OF FAMILIES AIDED DURING THE FIVE-YEAR PERIOD 1916-1920, AS SHOWN BY PERCENTAGES OF 1916 FIGURES



the situation in each home aided to make sure that the assistance given is such that the welfare of the children is conserved.

ADMINISTRATION AND SUPERVISION

There are four main types of administrative agencies: court (juvenile, county, district, etc.), county or town board granting poor relief, special county board and state board. The administration of mothers' aid in twenty states is lodged in a court having juvenile jurisdiction. In eleven states the county, town, or municipal board giving poor-relief administrators also the aid to mothers of dependent children. In three states, Pennsylvania, Delaware and New York, there are specially created county boards for the purpose of administering mothers' aid. In the first, there is a state supervisor having general advisory powers, and in the second, a state mothers' pension commission with an executive secretary for administrative work; the New York State Board of Charities has general supervision over the work of the county boards and has power to revoke allowances.

An existing state board is sometimes given administrative duties. In New Jersey, allowances are made by courts, but the preliminary investigations and the supervision of the families are under the State Board of Children's Guardians. The general administration in Vermont is in the hands of the State Board of Charities and Probation. The California State Board of Control, through its children's agent, grants and supervises aid to orphans, half-orphans, abandoned children, and children of permanently incapacitated and tuberculous fathers, the counties also paying stated amounts. The Arizona law of 1921 provides for a State Board of Child Welfare, with coöperating County Child Welfare

Boards, part of whose work includes assistance to dependent children in their own homes. In New Hampshire, the State Board of Education is charged with administration of allowances to mothers, working through the town school boards. In Florida, also, the work is tied up with the county boards of public instruction, but allowances are made by the county commissioners and supervision is in the hands of the State Board of Health in coöperation with the county boards. In Indiana, the existing County Boards of Children's Guardians were given authority to grant aid to children in their own homes.

There is some form of state supervision in eighteen states in addition to those in which definite administrative authority is lodged in a state board. In Massachusetts, Maine and Connecticut, the designated state board investigates recommendations of the local agencies, approves or disapproves grants, and exercises general supervision over the administration of grants. In the last two, the states divide equally with the town, municipality or county, the expenditures for relief; in Massachusetts, the state pays one-third. In Pennsylvania, there is a state supervisor of the Mothers' Assistance Fund, doing advisory work and aiding the county boards in administrative problems; the state makes an appropriation biennially, which is divided among the counties in the ratio of their population, with the provision that the counties must supply equal amounts. State appropriations to supplement those made locally have proved an important factor in encouraging local grants and in raising the standards of relief. Twelve of the forty states are authorized to share with the counties or municipalities the cost of administration or of aid. States in which the application of

mothers' pension laws was originally left to the initiative of local officials have frequently found it desirable to amend laws so as to make appropriations mandatory instead of permissive, and to supply some form of assistance or supervisory authority by the state, in order to carry out the intent of the laws.

The question of effective administration of mothers' pensions has been well summarized in the Standards agreed upon by the Conference on Child Welfare held under the auspices of the Federal Children's Bureau in 1919:

The policy of assistance to mothers who are competent to care for their own children is now well established. It is generally recognized that the amount provided should be sufficient to enable the mother to maintain her children suitably in her own home, without resorting to such outside employment as will necessitate leaving her children without proper care and oversight; but in many states the allowances are still entirely inadequate to secure this result under present living costs. The amount required can be determined only by careful and competent case study, which must be renewed from time to time to meet changing conditions.

Foster Home Standards for Socially Handicapped Children

By MARY S. DORAN

Of the Children's Bureau of Philadelphia

ONE of the most potent factors in creating foster home standards is a belief that the socially handicapped child should be given every chance to realize his fullest development; that his needs are fundamentally no different from those of other children and should be honestly met. Such a belief, the sort that translates itself into action, should permeate the whole staff of a children's organization and, particularly, the board of directors, for their position gives them the final say in determining policies. Board members, who in accepting their positions have voluntarily assumed the responsibility of intelligent parenthood, must uphold their children's rights in the midst of communities that so readily forget the defenselessness of childhood and value dollars and cents far above human life. Theirs is the privilege of bringing to the community an appreciation of the real value of a child's life and helping that

community to transmute more and more of its gold into possibilities for the development of its childhood, that these children, so badly handicapped through loss of home and the fostering care of parents, may have the opportunity to grow into self-respecting members of society.

RESPONSIBILITY OF BOARDS OF DIRECTORS

Modern psychology teaches that what we do is, after all, what we really believe. A few years ago a certain children's organization published in its annual report the statement that its equipment had become such that all of the children in its care were "now" receiving "personal consideration" and being fitted into carefully selected homes; but it neglected to state in this connection that its board of directors was requiring the visitors to care for from 130 to 160 children each. If by personal consideration they meant

knowing the personalities of 130 or more pre-adolescent boys and girls, the personnel of the different families in which these same children were placed and the history of the families out of which they came, all of which is essential to individual treatment or "personal consideration," they simply did not believe what they were saying. To ask one limited human being to know 130 or 160 children so completely as to render individual treatment to each, is to play the prank of the mad Hatter in asking Alice to have some wine. "I don't see any," said Alice. "There isn't any," said the Hatter.

No board with even a slight responsibility for its task could possibly tolerate the huge degree of child labor to which these placed-out children are subjected, creating and underwriting in the minds of the community the thought that the dependent child should be grateful even for the chance to labor; nor would the physical and moral neglect of children after placement be so prevalent if the board of directors believed that these children had anything like the same claim to human treatment as their own boys and girls.

A case in point is that of a farmer's wife who was asked by the directors of a small institution to take twenty-nine boys and girls of varying ages for the summer vacation. She requested that the directors provide an attendant who could be with the children during the day, as with her household tasks she could see little of them other than at meal times. Her request was refused. Because of the indifference of the directors she assumed a similar attitude and considered it no concern of hers when the older boys and girls went into the woods each morning after breakfast, staying away until the noon hour and repeating the same pro-

cedure in the afternoon. The board may have held the farmer's wife responsible for supplying an attendant, but if so, did not see to it that she secured one. This happened as recently as the summer of 1920.

KNOWING THE CHILD

The board that establishes a policy of justice toward its children will see in each child a human individual to be treated as such and will provide conditions that will contribute to his best development. To consider the child in the light of a human individual one needs to know who and what he is and, in transferring him to a strange home, to see him first against the background of his own home and family surroundings. One must have detailed information that will give a fine comprehension of the stock from which he comes, the soil in which he has been growing, the kind of human plant into which he is developing and the reasons why he needs to be transplanted. All of this knowledge is positively essential before the one can attempt to arrange for the child's future. The diagnosis for treatment, as it were, must be made upon a generous body of facts covering the life of the child and his family.

KNOWING THE HOME

The foster home plays an integral part in treatment and, as the urge to give individual treatment leads to the necessity of thoroughly knowing the child before any plan can be made, just so does it become essential to know many facts about a prospective foster home before one can wisely interpret the type of work for which it is best fitted or before any choice can be made for a special home for a special child. This choice should be made regardless of the class in society from which the home may come, for the

home must be considered only in the light of its fitness for the task. With the enlightened organization, the day is past when any child is placed in the foster family solely as a therapeutic agent.

An organization, by virtue of thoroughly knowing each child before placement, creates its own demand for thoroughly investigated homes. It can use no others. Out of its desire for justice it just naturally cannot make a practice of placing its children in partially investigated homes to complete the investigation through the child's experience with the family. Could any better method be devised for atrophying those qualities in a child, which should later blossom into self-respecting citizenship, than to pass him from one poorly investigated home to another, transferring him because after each placement something undesirable was learned about the family—something undesirable that should and could have been learned before any child ever stepped across its threshold? To let him experience an ugly temper that relieves itself at the expense of the child, a mean disposition that begrudges the child a real place in the family life, tolerating him merely for the work he could do, under-nourishment or a bad moral background? Yet, over and over again, the crust of an investigation is merely broken through just wide enough to shove in a child and he, in reality, becomes the investigating agent. The heavy toll which the delinquent group claims from the ranks of dependent children compelled to lead this "tramp life" is nothing short of appalling.

REAL AND COMPLETE EVIDENCE NEEDED

In seeking to establish the correct evaluation of a prospective foster home one cannot, out of justice to

someone else's child, rely solely upon his own estimate of the family, their home life, or their place in the community. However good his judgment may be in the interpretation of people and situations, a few hours contact with one or two members of the family can hardly reveal enough of the truth to enable him to feel sure that the family as a whole is worth-while material. He must seek the judgment of those who have known the family at close range over a longer period and out of their experience gain additional facts upon which to base the final judgment.

It is the person who has wintered and summered the family, and only he, who can give real evidence as to their moral fibre, or thoroughly comprehend the relations existing in the home between man and wife, the degree of responsibility each is showing toward the home and children, and what would seem to be the purpose underlying their desire to take another child into their midst. Have they a sympathetic understanding of a child's needs and, if there are other adults in the family, what is likely to be their attitude? It is quite possible for someone not holding any place in the making of family decisions to create an atmosphere that reacts most unfavorably upon the child's happiness. Then there are the health conditions of the family and the question of their disposition and temperament. Are they temperamentally fitted for the care of children; what has been the care and training of their own or any children for whom they have been responsible; what is their native intelligence, the grade of house-keeping that holds throughout the year, their financial condition, the way in which they spend their leisure time, their interests and standing in the community?

One needs to be shod with the desire

for something more than half truths and loose statements in the gathering of these facts, for invariably the person giving the information gives in proportion to the importance of the request as it exists in his own mind. One must often throw upon the mental screen of such a person a new conception of child-care before the facts wished for are forthcoming. Occasionally one may secure a full quota of evidence from one reference, but rarely does he find the person whose experience with the whole family has been so varied and whose judgment is so unbiased and discriminating that additional testimony is not needed; for, after all, the real value of testimony lies in having enough of it and it is the facts contributed by a group of persons that help weave the whole—facts that are weighed in the light of the personality, standards and judgment of each reference as well as his experience with the family.

KIND OF REFERENCES REQUIRED

Much depends upon having a group of well-chosen references, people who know the family from a variety of angles. It is desirable that all should not belong to the same social circle as the family. It is greatly to the advantage of the investigation when the names of references can be secured through a personal interview with the prospective foster mother, for much can be done to guide her in the making of a wise selection. The personal interview also gives opportunity to secure suggestions of possible sources of information unconsciously given. To depend upon an answered question form, no matter how elaborate, for the names of references leaves one quite at the mercy of the choice of the person who sends them. Under these circumstances the best he can do is so to shape the question form as to convey the idea of the type of

references desired, and include such questions as ask for former addresses and church membership. Former addresses, if of any duration, and particularly if outside of a city section, are invariably fruitful sources of information and through them, where the family have not transferred their church membership, one can get back to another local group. If in this way one good reference can be located, he in turn will invariably suggest some other reliable person if so requested.

To be obliged to interview most of the references by letter is another handicap, especially if the names of references have been secured through answered question forms and one knows little of what they represent. All sense of personal equation is lost. Make the letters as explicit as one may, he has no chance to get back of a spirit of indifference or misconception of the work and present his case. If, for instance, the majority of children throughout a section have been placed with little or no knowledge as to their physical condition, children with venereal diseases going into homes where there are other children, no doctor is likely to take seriously a written request for knowledge about health conditions in a prospective foster family. One must build up a large body of references throughout the territory used for placing—reliable people who can be interested and trained into an appreciation of what is needed in the way of information and who will, in response to letters of inquiry, secure the necessary facts from some authentic source if they themselves do not know the situation.

THE VISIT TO THE FOSTER HOME

The other essential portion of an investigation is the visit to the foster family. This should be made, whenever possible, after the references have

been interviewed, for the visitor should be free to give the family the mental assurance that they are acceptable if he is to produce an atmosphere congenial to the revealing of personal history. To be obliged to make the first contact with a family through a visit to their home restricts one greatly in the possibilities of touching these finer chords. The fact that he does not know what the family represents is prohibitive of that relaxed mental state that makes for confidence. In asking for references the family knows that it is yet to be tested and, although the most friendly feeling may prevail, there is bound to be a subconscious tension, for it is hardly fair to give the family an assurance of receiving children until more is known concerning them.

Where it is possible to have the first interview in the office, at which time the names of references are obtained or the application wholly eliminated, the way is left open for paying the home visits to only promising material and the visit thus freed for the closer contacts. One wants to know how life has affected the family and how they have taken it if he is really to know what they have to give to a child. One wants to know something of the environment in which the husband and wife, themselves, grew up: their traditions, their training, education and ambitions; the establishment of the new home; the training of their children; the man's share in the home life; their interests in other people's boys and girls; their contacts in the community; the breadth of their experience and how it has made for character and personality. To one who desires to sense the capacity of a home for shaping the life of a foster child this opportunity to gauge something of personal experiences will not seem like trespassing on family intimacies, for it

is never an end in itself. It is, to be sure, dealing in personalities and personal values but is strangely impersonal.

The home visit plays a vital part in interpreting the type of work the family is best fitted to do. A thoroughly good woman with an exaggerated idea of the divine right of parents may be just the person to bring certain children into line, but never the child who lacks confidence in his own ability. She may have done an excellent piece of work with her own boys and girls but one can hardly expect the majority of references to sense the situation from just the slant that one expects of a placing specialist. It is from the vantage ground of his specialized experience that he interprets and values foster home material, its possibilities and impossibilities, on the basis of facts gleaned from a number of sources.

There is something about the freedom of placing the child in an entirely new environment, with the opportunity to select new home material free from the flaws existent in the child's own home, that makes one somehow unconsciously search for the perfect home. One never quite relinquishes the search, always hoping at the next turn to find the home of his heart's desire, selecting, however, in the meantime from the imperfect human material that makes up the average imperfect community, homes that under the right touch, in spite of their imperfections, do marvelous work.

The majority of homes, even the best, have their liabilities as well as their assets, and in the selective process one must see to it that the liabilities do not fall too low, for there are certain fundamentals essential to each and every home accepted, without which it would be unwise to consider it for the task. Foster parents must be people who have personal character to

a greater or less degree; people who have a spiritual unity in their lives, who are facing life squarely and believe in their fellow men; people with good, native intelligence; people whose love has a touch of the universal and who can take to their hearts children who are in no way related to them. Their financial situation must be so that the home is not dependent upon the children's board or labor for maintenance. It is quite impossible to build up a family budget out of the board paid for children, as the rates go, and have anything left for the children. There should be good health conditions and a good environment—but character, as a rule, will satisfactorily shape the immediate environment.

SPECIAL QUALIFICATIONS IN HOMES

The special qualifications needed in a home vary according to the type of work undertaken and according to whether the child is to remain for a shorter or longer period. The baby placed for adoption must have in his new home such qualities as can meet his needs when he reaches adolescence; whereas the baby placed for temporary care during the first year and a half of his life, may prosper quite beautifully with a woman of colorless personality or one lacking in force. The big, outstanding assets of the baby home are a passion for cleanliness and routine and an instinctive appreciation of the need of adjusting life to the baby; also a fine spirit of coöperation with the nurse and the doctor directing the child. When the mother of the baby is not married and visits the baby in the home, the foster mother must be one who will not unwisely guide the mother, for she will frequently turn to the foster mother for advice.

In the home for the little "run-abouts," children from two to six years

of age, the essentials one wishes to see are a respect for the child's individuality and skill in training the child through ways of expression rather than repression. One wants a close, warm sympathy, an understanding of the need of routine as it relates to the child's physical needs and an appreciation of the wisdom of a simple, varied diet, a single bed in a room separate from his foster parents and plenty of out-of-door space for play.

The outstanding qualities in the home for the pre-adolescent and adolescent child are a sympathetic understanding that will lead him into some knowledge of self and his relation to the world of people about him, an ability to help in the readjustment of the child's life, when former environment has been against him—in short, the spirit which a good foster mother unconsciously expressed when she wrote to her boy's visitor: "Rejoice with me; Jack and I pulled down the last stone in the wall between us in our Sunday night talk and I now feel sure of the love and confidence of my boy. There are years of work in the gardening line—pulling up weeds and planting flowers—but I have accomplished the thing that is the foundation in a case like Jack's. He talks to me now and I have read a lot between the lines and that helps me in handling him. I find my bed-time talks are wonderful helps."

One needs sanity on the question of sex, a resourcefulness in developing interests and in establishing good neighborhood and community contacts, a wise balance between work and play. Such qualities are essential, whether board is paid for the child or whether by service in the home he earns the privilege of attending school, or gives all of his time in return for wages. It is not a question of economic status, but of the best development of the adolescent child.

A doctor's wife, with three small children of her own, considered taking into her family a girl of sixteen to assist in the home with the opportunity of attending school. The girl had lived for several years in an institution, but upon reaching her sixteenth birthday was expected to earn her own way. She was a good worker, but subject to periods of rather deep depression. In the doctor's family no separate room was to be provided for her. She was to use a room occupied by the family during the day, and no recreation, beyond that of attending school and Sunday school every other Sunday, was to be provided. This, the doctor's wife considered ample for any girl who was obliged to depend upon herself for support; indeed, if further provision had to be made she did not wish to consider her.

EFFICIENT SUPERVISION

The foster family that is finally accepted for service is precious material and, that it may become proficient in the work, should be shown every consideration by the organization directing the task, for working with someone else's child is far different from working with one's own. The difference in family background, inheritance, health, which often affects behavior, and early training throws the whole situation into a different setting. As one foster mother expressed it: "With our children it was a growth of years from their tiny babyhood. We never lied to them about anything and they just naturally didn't lie. There was so much in their training that we just did without reasoning it out and, beginning at the very beginning, there was

nothing to uproot. There sees, there was no problem about our children. By the time they were big enough to be fairly naughty they had learned not to be."

From the difference in setting there are bound to be storm and stress periods that call for the judgment of a person skilled in the art of adjusting human difficulties, who through the knowledge of many families and many children and, particularly, of the foster family and child in question, can sense the cause and release the tension. This he may accomplish through re-interpreting the child and his people to the foster family, rekindling their sympathy and realization that reëducation cannot come by leaps and bounds, or re-interpreting the family and the new life to the child or the child's relatives. This art of supervision calls for the expression of an appreciative understanding of all that the foster family are endeavoring to do and a contagious faith in their possibilities, which stimulates to further effort. Often the day is saved by the bit of humor, which does so much to illumine the situation for those who are living close to it, bringing to them new hope and courage. Effective supervision means so knowing each foster family and child through keeping closely in touch with them that by timely, definite suggestion many a difficulty may be forestalled and the family helped into attaining a grade of work that, unaided, would be to them an impossibility. Supervision is the crowning factor in developing foster home standards, for it takes, as it were, raw home material and through its creative touch helps to shape the seasoned product.

Supervision of Placed-Out Children

(With Special Reference to Those Who Should Ultimately Be Returned to Their Families)

By KATHARINE P. HEWINS

General Secretary, The Church Home Society, Boston, Massachusetts

THE office telephone rang. "Dr. Howe speaking. My colored cook wants to find a home for the five-year old child of a deceased friend. She can pay the board and will clothe the child."

Next morning the visitor from the Department of Advice and Assistance in the child-caring agency to which this case was referred, started her investigation. There was apparently little to learn. Diana, the cook, either didn't know or wouldn't tell. "She didn't rightly belong to mah frien'," she explained. "She got her from a lady in New Jersey and I don' jes disremember 'bout her; but anyhow youse is all right 'cause I'm gittin' good wages an' I sho will pay her boahd reglar."

But the visitor needed to know more: who was the child and did she have any relatives; what was her background and what sort of foster home, if any, did she need? Other clues lacking, little Gracie herself was questioned. Carefully and tactfully she was led to describe her life in the city of R—. She recalled her mother. Her name was Kate. Then there was Josie who, together with her mother, had been in the big jail just across the street from where they all lived. With this slender clue in hand, the investigator wrote to a sister agency in R— which skilfully identified the family. Gracie's mother, it appeared, had been born in Virginia of respectable parents and had left her home to hide herself and her shame in the city where she had given birth to this illegitimate

child. Her parents had mourned her as dead and did not know of the child's existence. When confronted with these facts, Diana broke down and admitted she had feared to tell the truth and that Gracie's mother was her own cousin. Correspondence with responsible citizens in their home town found the grandparents pathetically eager to give a home to the child and to atone through her for their lack of understanding of their daughter. And so the little girl was sent south to be brought up by her own people who would love and rear her as no foster parents, however well chosen, could possibly do.

This story serves to illustrate the need of searching investigation before children are received by an agency for placing-out. Only after every avenue has been exhausted, every effort made to keep or to establish a child with his own, should we resort to what is at best only a substitute for the real home with his own father and mother which is every child's right.

In his special message to Congress, following the White House Conference held in 1909, Theodore Roosevelt said: "Home life is the highest and finest product of civilization. Children should not be deprived of it except for urgent and compelling reasons." Over and over again, now in one form now in another, comes the heart wail of a child, "If I only had a mother she would understand." This is the expression of a God-given instinct born in every child and based on

a vital need—"to belong" as so many express it.

It is the recognition of this principle that has brought about the establishment of case work methods of inquiry in the best placing-out agencies. By this means a surprising proportion of applications is found to be capable of family adjustment.

But we must not delude ourselves. Every home is not a home. To keep a child with his natural parents just because they are biologically responsible for his existence may be quite as great an injustice to him as unjustifiably to separate him from them. What is needed in every case is such a weighing and examining of all the facts as shall lead to a decision based on the ultimate and real, and not the temporary or imaginary needs of the child, his family and the community. Such evaluation calls for skilled professional analysis and synthesis of the highest order. It presupposes a high ideal of the spiritual and moral values of family life.

Having reminded ourselves that good investigation often prevents the need of placing, let us consider the child who must be placed-out. Not until social work, like medicine and the law, develops a terminology of its own will social workers fully understand one another's use of terms. For the purposes of this article, the term "placed-out" is used with reference to any child separated for a longer or shorter period from his own blood relatives (other than his siblings) and cared for in a family home under the supervision of an agency, public or private. The term thus used applies to children placed in free homes, at board, or receiving wages. By a child is meant any minor under the age of twenty-one years.

Many child-caring societies have abandoned the institutional method

of care in favor of the more elastic system of placing-out, but too many have failed to follow the child with enough intelligently directed oversight after he is placed. Herein lies the source of much criticism of placing-out. The fault lies in the administration and is not inherent in the system.

NEED OF A DEFINITELY FORMULATED PLAN

When an agency assumes the grave responsibility of separating a child from his family, it takes squarely upon its shoulders the onus of a plan for supervision and the means for carrying it out. A deliberate formulation of such a plan at the outset is the first step towards putting it into operation. A second step is the commitment of this plan to writing so that the record is clear as to the intention. Without these steps it not infrequently happens that societies find themselves inquiring as to the underlying reason why this or that child was taken and fail to find the answer in the record. Without a clear-cut statement of the plan the very purpose in mind when the child was received may be unwittingly thwarted and supervision become aimless and desultory instead of pointed and orderly. It is not always possible or even desirable that the first plan should be carried out in full detail. Circumstances may arise later that indicate radical changes. The point is that these changes are more effective when made consciously and with deliberate reference to an original plan rather than in a haphazard and hasty fashion.

Every plan should include a dual supervision: that of the child in his foster home and that of his own family. These two parts of a whole are interdependent and for their best development should be conducted

under the direction of a single visitor. It is often fatal to good supervision of a placed-out child if the family is supervised by someone other than the child's own visitor. With the best of intentions and the most complete understanding of an ultimate end to be achieved, two visitors in the same society, not to mention two of different agencies, find great difficulty in not running counter to each other when they attempt team work of this sort.

SUPERVISION

Whatever supervision may be—and here again we need a definition—it is at least something more than an annual or a quarterly "visitation" by an over-worked agent who, upon her return to the office, commits to the record the negative report of "O.K." or "Found child in good condition—seems happy." It is rather such oversight of a child and his family as shall provide him with an environment which shall be a constant justification for the assumption that the supervising society is constructively shaping the life of a future citizen.

The following is an illustration of a failure to give adequate family supervision, whereby an investment became a wasteful extravagance: A child-placing society took into its care three small children. The plan as revealed by the record was: "Place Mary, Jeanie and Curtis while mother, whose prognosis is good, takes treatment at a tuberculosis sanatorium. Aunt Jeanie will take Sophie. As soon as father gets employment he should contribute towards support of the children." All three children were young, normal physically and mentally. It was comparatively easy to place them together in an approved foster home favorably known to the society through repeated use. It was known from the first that only by constant oversight could the

mother be prevailed upon to stay her allotted time at the sanatorium and thus effect a cure. The foster mother's interest was secured and she wrote weekly to her, giving encouraging reports regarding the children's progress. Hard times continued to make it difficult for the father to get more than casual occupation. Though the children's visitor made suggestions of work opportunities by letter and urged him to come to the office, she did not *go to see him* and she did not *personally visit the mother* at the sanatorium. Meanwhile she visited the children with conscientious frequency, seeing them in their foster home and at school. They were taken to the dentist, their adenoids were removed and, last but not least, they went to the circus. The father found time and money to visit his wife and children, but did not contribute a cent for their support or volunteer any explanation of this delinquency.

And then the visitor learned quite by accident that, against advice, the mother had discharged herself from the sanatorium and was living with her husband in furnished lodgings. Their own furniture, not yet paid for on the installment plan, was still in storage. Meanwhile, the aunt who had taken Sophie had decided that if the mother were home she might as well have her child while she, the aunt, took a much desired vacation. The society was caring for the other children under these adverse home conditions. It had failed through lack of family supervision to impress upon these parents the significance of the whole plan and their part in it.

A more constructive bit of family supervision of placed-out children is the following: "Mrs. M—, a deserted wife, asked a child-placing society to care for her three children, fourteen, nine, and two years old,

respectively. The home was already broken up. The father, immoral and a bigamist, had been gone a year. The mother's physical condition was such that an operation followed by a long rest was imperative. The children were placed by the society; hospital treatment and, later, convalescent care were arranged for the mother. She dreaded the ordeal and had to be encouraged step by step. So too she had to be encouraged in regard to tracing and prosecuting her husband. But a patient, painstaking and resourceful visitor saw her frequently and together they worked out the future. At the end of a year, the mother's health restored and regular weekly payments coming from her husband, an apartment was leased, furniture bought and the home re-established. At this point Mothers' Aid was secured and the children returned to their mother. Even then, supervision continued for a year to make sure that all was well. At the end of the year this family was retired to a "perennial inquiry" list, a yearly follow-up that is something less than supervision, but which affords evidence of results both good and bad and serves to check up the work of a society.

And what of supervision of placed-out children themselves? They should be so cared for that when the time comes for return to their families, defects of body, brain and character that can be corrected shall have been remedied. The tendency of the curve of the chart—spiritual as well as physical—should be upward, depending in degree upon the qualities with which the children are originally endowed and the period they are under supervision. And for those who are permanently separated from their kin there is an even greater obligation, for they suffer from a handicap that entitles them to

very special watchfulness and solicitude.

ESSENTIALS TO GOOD PLACING-OUT

We would unhesitatingly place personality and training of the supervising visitor as the first essential to good placing-out. And this priority is not in any way belittling but rather emphasizing our second requirement, a good foster home. It is because the selection of the home depends in the first place on the judgment and character of the visitor and also because she has it so much within her power to develop that home through proper use to greater service, that we class her personality and training as of prime importance. A social worker with imagination may make admirable use of a home that looks useless at the outset. The writer recalls such an instance. A fourteen year old colored sex offender, possibly feeble-minded, had contaminated the children in her own neighborhood and was a menace to them and to herself. She needed intelligent observation in family and school life before the doctor could diagnose her as suitable for institutional care. The problem was how to give the child her due and to give it without danger to others. An intelligent childless couple, colored of course, living in a rural community away from neighbors was found willing to undertake the task; but when the school situation was investigated, it was discovered there was a barge ride of some two miles. Determined to master this difficulty, the resourceful visitor prevailed upon a well-to-do white neighbor to allow the child to go back and forth to school daily in her limousine with her own little daughter who was always accompanied by a maid. Thus the problem was solved and it took only a few months to determine

that the little colored girl needed custodial care.

The supervision and education of foster parents by the visitor is as important as her direct contacts with the children, especially the younger ones. Given the essentials of character and an economic status that is above the poverty line, many a foster home of otherwise indifferent development can, with judicious oversight, be brought into far greater usefulness than at first appears possible. In communities where placing-out has been carried on a long time and where foster homes are difficult to obtain in sufficiently large numbers, this is an especially important point. Another and perhaps an even more significant reason for working through foster parents as well as directly with the child, is the more natural relations which it establishes for him with the family. The more a child becomes truly a member of the foster family, and the more he can be identified with their community, the less he considers himself and is looked upon by others as belonging to a group of dependents.

In referring to the responsibility of the state for children in need of special care, Robert W. Kelso says:¹

It is necessary to the advancement of any community that the forthcoming generation be superior physically and mentally to the generation out of which it springs. Consequently, organized society owes to the growing child who is in need of special care sufficient protection to render reasonably probable his up-growth to the age of self-support with physical health and intellectual attainment equal to that of the average child in the community.

The economic wastefulness of merely patching up broken down human machines is acknowledged. Health

movements throughout the country encourage prenatal and postnatal care for mothers. The Children's Bureau, to stimulate interest in the early establishment of a sound body, undertook the weighing and measuring of all the young children of the nation. Nearly, if not quite one-third of the states now have some measure of physical inspection and physical education in the schools. Dental clinics, school doctors and school nurses testify to the change in emphasis from alleviation to prevention.

REQUIREMENTS OF GOOD SUPERVISION OF PLACED-OUT CHILDREN

1. *Physical Care*

Good supervision for the placed-out child means, first of all, a thorough preliminary physical examination by a competent physician. Remediable defects should be corrected. But this alone is not sufficient. Periodic re-examinations must be given. Only in this way can minor ailments be detected and incipient conditions arrested. If it be argued that such care is more than the average child in the community receives today, what shall be said of the dependency handicap from which our placed-out child suffers, and which the child in his own home never knows? This alone would justify any additional safeguards that may be thrown around the placed-out child. If the vicious circle of dependency is to be broken and the child escape the fate of his parents; if, in other words, he is to become a self-sustaining citizen and an asset rather than a liability to society, it will be because his opportunities have been increased and his power of resistance to things physically and morally evil has been strengthened. The line of least resistance for dependents is down stream. It

¹ *Standards of Child Welfare*, Children's Bureau Publication no. 60, p. 307.

takes a strong pull and a long pull to head them up stream.

2. *Diagnosis of Mental Abilities*

Routine mental examinations for children have not been thought as important as physical, but there is a growing appreciation of their value. Here again, as in medicine, we began by stressing the abnormal, the feeble-minded and the insane. For this reason a certain stigma has attached itself to these examinations, at least in the minds of the subjects and their parents. But when the emphasis is placed on prevention, on the positive value of mental tests as an aid to vocational guidance, coöperation is substituted for antagonism. It is as important that special abilities shall be encouraged as it is that dangerous types shall be segregated. Special classes for the intellectually superior child are coming, more slowly, perhaps, but none the less surely than special classes for the backward.

Well-rounded placing-out supervision includes a diagnosis of the mental abilities and limitations of each child. Such examinations should always be given either by a competent psychiatrist or psychologist. Nothing is more dangerous than the dilettante dabbling by social workers or teachers in this subject. Important as we believe the routine mental examination to be, we would rather see it omitted than given by an unqualified person. Intelligence quotients and mental age levels, if taken by themselves unrelated to other equally important factors, are usually misleading and often pigeon-hole a child in a most unfair manner. Rightly interpreted, they are a great aid to the understanding and fair treatment of the child. Social workers who supervise children should be in close consultation with the psychiatrist who will depend for much of

his data on the child's reactions to environment reported to him by the social worker. Together they will work out a program that shall be best adapted to the child's particular needs.

3. *Religious Training*

Religious training is too often but slightly regarded. It must be given in definite form to the placed-out child and no merely negative attitude towards this vital matter should be tolerated. A placed-out child has a right to be put with a family of his own faith where he will receive definite religious training. It is part of good supervision to follow him into his Sunday school and church relations. So long as denominational differences exist, care should be exercised to insure the continuous upbringing of a Protestant child in the particular denomination to which his parents recognize allegiance. In taking this position we are conscious that it is not a popular view, and may not at first seem to square with the religious tolerance with which we are in entire accord. In our experience we have seen many a Protestant child given such a medley of religious instruction in the course of his journeyings from one foster home to another that he has grown up, not with a breadth of view and tolerance on religious matters but rather with a total disregard for worship in any form. Roman Catholic and Jewish children are already safeguarded in this particular. Childhood is not the time to leave a human being adrift in matters which relate to his soul's needs. If he is to develop spiritually as well as physically and morally, he must receive religious education quite as definitely and regularly as he receives instruction in the three R's and the moral code. Later in life he will thus be better prepared to select for himself that form of worship that

appeals most strongly to him, and only thus will he have a foundation on which to build his own faith.

4. *Recreational Facilities*

Play is growth under the supervision of the great achieving instincts, the chief of which are hunting, fighting, creation, rhythm, nurture, curiosity and team play. They form the constant element in the child's life and become the warp of the resulting fabric.²

Very glibly the formula that recreation is vital to the all-round development and growth of the individual is repeated, and yet how comparatively little is done about it. As part of a constructive program for the supervision of placed-out children, it is sure to be given more emphasis in the future than in the past. Beginning with the need of the infant for self-expression, this instinct must be given opportunity for growth. It is a well recognized fact that babies do not thrive on the congregate plan. Froebel tells us that no matter how complete the physical surroundings, there is nothing that replaces the mother who, through her natural contacts, develops the play spirit essential to physical growth and even to life with the very young. Later on, play has moral and spiritual significance.

Each age period has its special play features. The dramatic age when the imagination must be wisely guided is followed by the age of reality. Then wholesome outdoor sports make their appeal. An opportunity is afforded to develop team spirit and an obligation towards the rights of others. Play rightly directed, puts a restraint on present gratification for future gain. It is the medium in which self-mastery and loyalty towards others is developed. Foster mothers should be led to regard as essential, recreation

adapted to the age and condition of each child.

For the older children, gymnasium, Boy and Girl Scout activities, skating, swimming and even dancing and music lessons, all in their proper sequence and in accordance with the needs of the individual child, should be arranged, always under careful supervision. Necessary attendant fees should be borne cheerfully by the agency and recognized as legitimate expenses like eye-glasses and dentistry.

5. *Adequate Clothes, Etc.*

The limits of this article forbid more than passing reference to such a detail of supervision as clothing, more important in character-building than many realize. The self-respect engendered in a fourteen-year-old girl who is allowed to make her own purchases under supervision and who thereby receives perhaps her first lesson in thrift and true economy, can best be appreciated by those who have witnessed the change wrought by this means in such a girl who has lived not merely in "hand-me-downs," from older brothers and sisters, but in cast-off garments donated by strangers. A suit "like other folks'" contains a powerful psychological impetus towards better human behavior than we are prone to believe.

Thriftlessness, lack of fore-thought, inability to save for a rainy day grow out of early environment and poor home training. The majority of dependent families come from homes where living is a hand-to-mouth affair. A placing-out society has a wonderful opportunity through its controlled environment to teach budgeting at an early age. Allowances from five to twenty-five cents a week have great educational value. Whenever foster parents can give an allowance to children too young to earn small amounts,

² *Play in Education*, by Joseph Lee, p. 62.

they should be encouraged to do so. Whenever they cannot do it themselves, it should be considered a legitimate charge upon the society's funds. In every instance, the child should be held to give a strict account of the money and be taught to budget it for benevolence, gifts, recreation and savings. The age and development of a child should control the amount of the allowance, but a small one carries fully as great educational value as a large. Later on, boys and girls alike should be encouraged to earn small amounts by doing errands, picking berries, wheeling a baby for a neighbor and the like, and these small earnings should gradually replace the allowance.

Supervision of the sort we have in mind cannot be given to a group of children exceeding forty. The group should be smaller if any considerable number of babies, unmarried mothers or other special problems is included. Distance of the foster home from the office as well as accessibility are among other considerations.

6. *Frequent Visits*

One frequently hears the query, "How often ought placed-out children to be visited?" Supervision means so much more than merely visiting that one hesitates to say how often a visit should be made to the foster home. As a guide, but not as a rule, the writer feels that any child who has not been seen in his foster home for two months is in danger of being neglected. As a safeguard against this, certain agencies require the visitor to report such children to a supervisor. Circumstances may justify the visitor in having let this interval elapse. Nevertheless, it is a danger signal and should be watched by a supervisor. Contrariwise, a child, especially when he first comes into care and has been placed in a home that is new to the

society as well as to him, may be visited to advantage weekly or oftener. Adjustments between foster parents and children are facilitated by sympathetic oversight. A dictatorial overlord attitude on the part of the visitor must never be indulged in and, above all, anything approaching a spy attitude should be discouraged. Rather should there be established a frank comradeship whereby the visitor is accepted as next friend, but a companionship that in no way sets aside the child's relationship to the foster home. It is a delicate balance to maintain, this ultimate responsibility of a society for the welfare of the child and the development of an at-home atmosphere between foster parents and children. Those who have done it testify that it is a workable adjustment.

SUMMARY

To sum up the principles of wise placing-out:

1. Children should be separated from their own families only after all practical measures have been exhausted for continuing or making possible reasonably good family life.

2. When it is clearly indicated that the family cannot be maintained with advantage to the group, and placing-out is shown to be desirable for the child, and when it may be looked upon as treatment designed to reestablish the child in his own home, or when this is impossible, to set him on the road to maintaining an honest and industrious life, then:—

3. Such constructive supervision shall be given the child and his family as shall tend to correct the conditions which made the separation necessary.

4. The placed-out child, being under a dependency handicap by virtue of his lack of parental care, needs all the safeguards and opportunities for a full development of his powers that the

average child in the community needs, plus special safeguards and even greater opportunities because of the handicap from which he suffers.

When we speak of dependency we do not limit ourselves to economic dependency; on the contrary we would include the child dependent upon others than his natural protectors for love and sympathy and understanding. Nothing can replace the mother who, looking into her child's face, sees her own and her husband's weaknesses and strength reflected there and seeing knows and understands and loves and forgives as no other human being ever can do. Nothing that human ingenuity can devise will replace good parental care in the life of a child. In spite of all our efforts, preventive and remedial, many thousands of children fail of this, their just due. When this happens, whether through the fault of

the individual or of society, it is society's obligation and its own safeguard to give the best substitute possible. For most children this is a foster home, carefully selected with the needs of the individual child in mind, and supervised by a naturally endowed, well educated and specially trained person who has the fundamental qualities of tact, humor and love of her kind.

Time was when any well disposed decadent female of uncertain years was thought equal to the task of directing the lives of placed-out children. Today the job is looked upon as of such importance and dignity that it ranks as a type of work which calls for careful preparation and study of the technique of case work. The social surgery which is implied in the separation of a child from his family is a task big enough to challenge the interest of the best minds.

Social Responsibility for the Protection of Children Handicapped by Illegitimate Birth

By KATHARINE F. LENROOT

Director, Editorial Division, Children's Bureau, United States Department of Labor

IN its bearings upon social standards, family relationships, infant mortality, dependency and neglect, illegitimacy occupies a place of more than usual interest. Among all races and peoples from the time of the establishment of the marriage institution, the problem of birth out of wedlock has been present. As marriage became interwoven with private property and inheritance rights, the stigma upon illegitimacy increased, and also the hazards to which the child born out of wedlock was subjected. In an effort to prevent illegitimacy and to stamp out infanticide, which was alarmingly prevalent, Church and state in the Middle

Ages imposed drastic penalties upon the mothers. The children were deprived of civil and ecclesiastical rights; though during this period the beginnings of the modern movement for the protection of such children were seen in the establishment of foundling asylums, with their *tours* in which children could be left secretly.

Modern times have seen a marked change in the attitude of society toward the child born outside the sanction of the law, though only within recent years has this altered point of view been crystallized into legal form. From the decree of Napoleon forbidding inquiry into paternity, it is a long

step to the French laws permitting such inquiry, enacted shortly before the War, and the proposal for more thorough enforcement of paternal responsibility, made by a French delegate to the Second International Congress for Child Welfare held in Brussels in July of this year. In England, under the common law the child of illegitimate birth has been termed "filius nullius," and the only recognition of responsibility on the part of the parents for his support has been under the poor law or governed by its policies; but only recently a strong reform movement has been led by the National Council for the Unmarried Mother and Her Child. A bill backed by the National Council and for some time pending in Parliament, recognizes that the child born out of wedlock has two parents, both having certain obligations toward their offspring, and that the state owes especial protection to all such children. A substitute bill, much modified, is now before Parliament.¹ But it is the Scandinavian countries—first Norway and then Sweden—which have led in enacting legislation assuring to the child of illegitimate birth some approximation of the parental care and support accorded the child born in wedlock.

In the United States, illegitimacy legislation has mainly followed the English precedents. It is only within the last ten or twelve years that a movement has developed which has already placed upon the statute books of several states more just and adequate laws, based upon the theory that the children are innocent and that, so far as such advantages can be secured by legal and social measures, they are entitled to the same benefits of home life

and parental care as are enjoyed by children of more fortunate birth.

THE PREVALENCE OF BIRTH OUT OF WEDLOCK

In the United States it is very difficult to secure adequate data on the prevalence of birth out of wedlock, even in the states—comprising 58.6 per cent of the total population—which are now included in the birth registration area. The proportion of unregistered illegitimate births is undoubtedly greater than the proportion of unregistered legitimate. The entry of incorrect information on the birth certificate further invalidates the figures, and the failure of many states and cities to compile separate statistics for illegitimate births reduces still further, the amount of information available. The figures that can be obtained indicate a problem not so great in extent as in most European countries,² but of sufficient proportions to demand serious attention and study. In eight states in the birth registration area in 1915, the number of live births reported as illegitimate per 1,000 single, widowed, and divorced women of child-bearing age (15 to 44 years) was 4.6. This percentage was lower than in any European country for which figures were obtained except Ireland.

In most states for which data can be secured, the percentage of illegitimate live births ranges from seven-tenths of one per cent to 2.4, if Negro births in states having large Negro populations are excluded. Table 1 shows the per cent of illegitimate live births in 28 states, 22 of which are now in the birth-registration area.

In twenty-one cities having more than 100,000 population, statistics of illegitimate births are available and

¹ For debates on the English bill, see *Parliamentary Debates*. H. C., Vol. 128, No. 57. See also *Maternity and Child Welfare*, London, Vol. 5, No. 4 (April, 1921), p. 105.

² For prevalence in Europe, see U. S. Children's Bureau, *Illegitimacy as a Child Welfare Problem*. Part 1, Washington, 1920. Pp. 10-15.

TABLE 1

PER CENT OF LIVE BIRTHS REPORTED ILLEGITIMATE IN TWENTY-EIGHT STATES OF THE UNITED STATES *

STATE	1915	1916	1917	1918	1919	1920
Alabama:						
White.....	1.0	0.9	0.9	0.8	0.9	1.1
Negro.....	14.1	13.7	12.8	10.0	11.6	14.4
Connecticut†.....	1.1	1.0	0.9‡	1.1‡	1.0‡	..
Indiana†.....	1.4	1.5	1.4	1.4	1.5	1.5
Kansas†.....	..	..	0.7‡	0.6‡	0.7‡	..
Kentucky:†						
White.....	..	..	1.0‡	0.7‡	1.0‡	..
Negro.....	..	..	7.5‡	8.6‡	10.4‡	..
Maine†.....	..	..	1.0‡	0.8‡	1.1‡	..
Maryland:†						
White.....	2.4	2.2	1.7‡	1.8‡	1.9‡	1.7
Negro.....	20.7	20.5	17.1‡	17.1‡	18.0‡	19.5
Massachusetts†.....	2.3	..	0.8‡	0.7‡	1.0‡	..
Michigan†.....	1.7	..	1.2‡	1.2‡	1.3‡	..
Minnesota†.....	2.0	1.9	1.8	1.9	1.8	1.8
Missouri.....	2.1	2.2	2.4	2.3	2.9	3.0
Nevada.....	0.9	1.9	1.0	0.3	0.5	0.7
New Hampshire†.....	0.8	1.1	1.1	1.2	1.1	1.3
New York†.....	..	..	1.0	0.9‡	1.0‡	1.0
North Carolina:†						
White.....	..	..	1.6‡	1.4‡	1.5‡	..
Negro.....	..	..	12.5‡	11.4‡	11.5‡	..
Ohio†.....	..	..	1.3‡	1.3‡	1.5‡	..
Oklahoma:						
White.....	..	..	..	..	0.8	..
Negro.....	..	..	..	..	6.1	..
Indian.....	..	..	..	..	2.5	..
Oregon†.....	..	..	..	..	1.4‡	..
Pennsylvania†.....	2.0	1.8	1.8‡	1.8‡	1.9‡	..
Rhode Island†.....	1.5	1.3	1.2	1.4	1.3	..
South Carolina:†						
White.....	..	..	..	..	1.7‡	..
Negro.....	..	..	..	..	13.6‡	..
South Dakota.....	0.8	0.9	0.9	0.7	0.9	0.7
Texas.....	1.0	1.0	1.2	..	1.2	1.8
White.....	..	..	0.6	..	..	..
Negro.....	..	..	7.8	..	..	..
Utah†.....	0.8	0.7	0.7	0.8‡	0.8‡	..
Vermont†.....	1.9	1.4	1.8	1.3‡	1.9‡	..
Virginia:†						
White.....	..	..	2.0	1.8	1.8‡	..
Negro.....	..	..	14.3	13.3	13.0‡	..
Washington†.....	..	..	0.9‡	0.8‡	1.0‡	..
Wisconsin.....	1.4	1.6	1.5	1.5‡	1.2‡	..

* Unless otherwise indicated, the data were furnished by state departments of health and bureaus of vital statistics. For figures for earlier years, see *Illegitimacy as a Child Welfare Problem*, Part I, cited above, p. 23. In some states it was impossible to tell with absolute certainty whether or not stillbirths were included in the number of births, especially in the number of illegitimate births.

† States now in the United States birth registration area.

‡ U. S. Bureau of the Census: Birth Statistics for the Birth Registration Area of the United States, 1917, 1918, 1919. Washington, 1919, 1920, 1921.

are given in Table 2. The percentages for most of these cities are larger than those for the states in which they are located.

In 1919, the Children's Bureau made an estimate of the total yearly average of white illegitimate births in the United States, by applying the average number of illegitimate births per 1,000 single, widowed, and divorced white women of child-bearing age in the sixteen states for which statistics were available, to the estimated number of all such women in the country. From this estimate, it appears certain that at least 32,000 white children are born out

of wedlock each year.³ To what hazards these unwanted and unwelcomed babies are subjected will be shown later in this discussion.

THE BACKGROUND OF ILLEGITIMACY

Who are the mothers and fathers of these many thousands of children born out of wedlock each year? With what heritage are the children endowed? What are the possibilities of care by the mothers and fathers, and to what extent is the protective aid of the community, exercised through public or private agencies, a necessity? All these questions are involved in the

TABLE 2
PER CENT OF LIVE BIRTHS REPORTED ILLEGITIMATE IN TWENTY-ONE CITIES OF THE UNITED STATES HAVING MORE THAN 100,000 POPULATION *

CITY	1915	1916	1917	1918	1919	1920
Baltimore:						
White	3.1	2.6	2.1	2.5	1.7	1.3
Negro	24.5	22.7	21.6	23.1	20.9	21.8
Boston	4.6	..	..	..	..	..
Buffalo	2.1	2.2	2.5	1.8	2.2	1.9
Cincinnati	3.8	2.8	2.3	2.6	3.0	2.9
Cleveland	2.3	..	..	1.2	..	..
Denver	2.8	2.9	3.6	4.0	3.4	3.2
Detroit†	2.6	2.1	2.0	1.9	1.7	2.2
Grand Rapids, Mich.	3.7	4.1	3.4	2.9	3.2	3.2
Hartford	1.8	1.9	1.9	2.1	1.7	2.2
Kansas City, Mo.	6.1	6.2	7.9	8.2	11.9	13.6
Milwaukee†	2.6	2.8	2.6	2.3	2.5	2.7
Minneapolis	4.3	4.0	4.0	3.8	3.3	3.9
Newark	1.4	1.3	1.1	..	..	..
New York	1.2	1.1	1.0	..†	1.1	1.1
Philadelphia	2.7	2.4	2.3	2.3	2.3	2.6
Pittsburgh	3.0	..†	..†	..†	2.9	2.8
Providence	2.1	1.7	2.1	2.1	1.6	1.8
St. Louis	3.7	3.9	3.6	3.6	4.2	3.7
St. Paul	5.1	4.5	5.0	3.8	4.1	3.9
Toledo	2.6	1.7	1.8	1.8	2.0	2.0
Washington:						
White	2.3	1.6	2.3	1.4	1.8	2.0
Negro	19.5	18.2	18.8	15.9	17.0	15.9

* The data were furnished by state or city departments of health or bureaus of vital statistics. For figures for earlier years, see *Illegitimacy as a Child Welfare Problem*, Part I, cited above, p. 25.

† Includes stillbirths. The percentages would have been slightly lower had stillbirths been excluded.

‡ Not available.

³ *Illegitimacy as a Child Welfare Problem*, Part I, cited above, pp. 26-27.

formulation of a wise social program.

Recent studies have shown that many of the mothers—from one-ninth to about one-fifth in various groups for which information has been obtained—are but children themselves, being under the age of eighteen years. About the same proportion of the fathers are under the age of legal majority. Available information indicates that the great majority of the mothers are gainfully employed prior to the child's birth, chiefly in domestic service or as semi-skilled factory workers. Almost half the fathers are in the ranks of semi-skilled workers, laborers or servants, though a large percentage are skilled workers or clerks and kindred workers.

One-fifth of the mothers of infants born out of wedlock in Boston during one year, for whom the information justified classification as to mental condition, were known to be below normal mentally, 8.8 per cent having been diagnosed as feeble-minded. These are understatement. Considering together the mental condition of parents and maternal grandparents, only fragmentary information being available, it was found that of 2,178 children born out of wedlock who were under care of social agencies, at least 19 per cent had a heritage in which there was known or probable insanity, feeble-mindedness, or other subnormal or abnormal mental condition. In 9 per cent of the cases there was definite feeble-mindedness or insanity in the family history.

Repeated infractions of the moral code, serious alcoholism, or other anti-social characteristics were reported in the histories of 42 per cent of the mothers of children born out of wedlock in one year, for whom social information was available, while the mothers of 54 per cent of the children under care of social agencies and of the same per cent of children under care of the state,

were so reported. Considering together the character of mother, father, and maternal grandparents for the group of 2,178 children under care of social agencies, only 38 per cent of the children had parents and grandparents who were of good character, so far as known. The mothers, fathers, or maternal grandparents of 62 per cent were alcoholic, immoral, otherwise delinquent, or of poor character.⁴

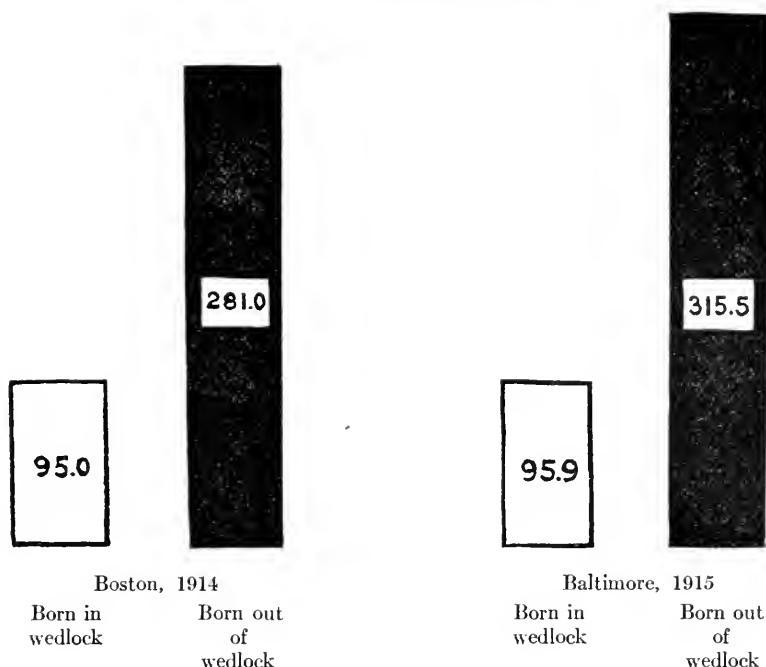
THE HAZARDS OF ILLEGITIMACY

Infant mortality. Wherever comparative figures are available showing infant mortality rates among babies of legitimate and of illegitimate birth, they tell the same story of the hazard to life and health to which the latter are subjected.

In Baltimore in 1915, white children of legitimate birth died at a rate of 95.9 per thousand, while the infant mortality rate for white children of illegitimate birth was 315.5, or 3.3 times as great. In Milwaukee, in the two-year period 1916-1917, the infant mortality rate among children born out of wedlock was 236.8 per thousand—two and one-fourth times as high as the rate for children of legitimate birth. In Boston, in 1914, the infant mortality rate based on the number of births and of infant deaths in that year, was 95 for children of legitimate birth and 281—three times as high—for those born out of wedlock. Early separation of the mother and child and the consequent difficulties in feeding undoubtedly account in large part for these excessive rates, though the rate for diseases of early infancy, closely associated with prenatal and natal conditions, was in Boston nearly three times as high as the corresponding rate for children of legitimate birth.⁵

⁴ *Illegitimacy as a Child Welfare Problem*, Part 2, and also Part 3 (in press).

⁵ *Ibid.*, Part 2, and also Part 3 (in press).

COMPARATIVE INFANT MORTALITY RATES FOR INFANTS BORN IN WEDLOCK
AND BORN OUT OF WEDLOCK

Deprivation of parental care and support. By the circumstances of their birth, children born out of wedlock are deprived of the care and affection of both parents given under normal home surroundings. Separation from the mother at a very early age is a common experience. Recognizing the relation between separation from the mother and infant mortality, the laws of two states forbid the separation of mothers and babies under six months of age, while in a third state and in the largest city of a fourth, the same purpose is attempted through regulations by official bodies.⁶

A majority of the children born out

⁶ Maryland, Laws 1916 c. 210; North Carolina, Laws 1917 c. 59; Minnesota, Joint Resolution, State Board of Health, State Board of Control, 1918; "Milwaukee Program for Unwed Mothers Proves Value of Breast Feeding," by Louise Drury, *The Crusader*, Vol. II, May, 1920, p. 18.

of wedlock receive no financial assistance from their fathers. Of 2,178 children of all ages under care of Boston agencies, the fathers of only 674—not quite one-third—were known to have contributed in any way to the support of the child or to have given the mother financial assistance; the fathers of two-fifths of 629 children less than two years of age under care of Philadelphia agencies, and the fathers of three-tenths of 271 children of the same age under care of Milwaukee agencies, had made such contributions, informally or through court action.

Hereditary handicaps and environmental difficulties. The hereditary handicaps which are the lot of many children born out of wedlock have already been indicated in the discussion of the background of illegitimacy. Besides being deprived in a large pro-

portion of cases of normal home life and of parental care and support, children born out of wedlock often suffer from other environmental disadvantages, including extreme poverty, poor living conditions, immorality or other delinquencies on the part of those responsible for their care, and frequent shiftings from home to home and from one type of care to another.

THE RELATION OF ILLEGITIMACY TO DEPENDENCY AND DELINQUENCY

Illegitimacy contributes largely to the burden the public must bear for the care and support of its weaker members; dependency upon social agencies is likely to begin earlier and to last longer in the case of children of illegitimate birth than among dependent children born in wedlock—except in those areas where almost immediate adoption is the rule in practically every instance coming to the attention of agencies.

More than one-third of the children born out of wedlock in Boston in one year were, during infancy, given prolonged care by child-caring or child-protective agencies. One-sixth of the cases under care of private child-caring agencies during the year, concerned children of illegitimate birth; one-ninth, of the cases under care of the public child-caring agency of the city, and almost one-fourth, of those under care of the state child-caring agency.⁷

The relation between illegitimacy and juvenile delinquency is naturally less close than that existing between illegitimacy and dependency, but the indications are that children born out of wedlock contribute more than their share to the numbers of juveniles who come in conflict with the law or who are wayward and difficult to control.

⁷ *Illegitimacy as a Child Welfare Problem*, Part 2, cited above.

Probably this may be in part attributed to the shifting of the children from home to home and the comparative readiness with which custodians who are not parents of the children ask to be relieved of their care when they are troublesome.

STANDARDS OF LEGAL PROTECTION

In most states the child born out of wedlock bears practically the same relation to the mother, in matters of support and inheritance, as the child of legitimate birth; but in practically all states, up to the present time, it has been held incompatible with the interests of the legal family to place the child of illegitimate birth upon an equality with the child born in wedlock, with respect to his claims upon the father. North Dakota in 1917 and Arizona in 1921, enacted laws declaring every child the legitimate child of his natural parents and entitled to the same degree of support and education whether born in wedlock or born out of wedlock. Certain states give limited rights of inheritance from the father. Iowa, Wisconsin, and Missouri by a 1921 law, give rights of inheritance from the father whose paternity has been proved during his life time.⁸

Special forms of legal procedure have been developed for the establishment of paternity and the securing of support. Extreme examples of the inadequate amounts specified in many of these laws are found in the laws of one state in which the judgment is for a fine of \$10 and a single payment of \$50; and in the laws of another where the amount allowed is from \$1 to \$3 a month.⁹ Moreover, laws relating to support are rendered still less effective by the limited use that is made of them. Within the past

⁸ U. S. Children's Bureau: *Illegitimacy Laws of the United States and Certain Foreign Countries*, by Ernst Freund, Washington, 1919, p. 21.

⁹ *Ibid.*, p. 41.

few years has come a great awakening of interest in legislation affecting children born out of wedlock, which for a century had been in a static condition. A law greatly increasing the support-obligation of the father was enacted in Massachusetts in 1913. In 1917, Minnesota passed one of the most liberal laws on the statute books of any state, and, in its administrative features, perhaps the most effective.¹⁰

As a means of bringing to a constructive conclusion its studies on illegitimacy as a child welfare problem, and at the request of the Inter-City Conference on Illegitimacy, an organization representing about twenty local groups and many individual members, the Children's Bureau of the United States Department of Labor held in 1920 two regional conferences on standards of legal protection for children born out of wedlock. The conclusions of these conferences may be summarized briefly as follows:¹¹

1. All births should be registered, but in the case of an illegitimate birth the name of the father should be recorded on the birth certificate only after an adjudication of paternity or with the father's written consent. All births not clearly legitimate should be reported to a public agency having the responsibility for child welfare.

2. Proceedings to establish paternity should be initiated by the mother, or, if she is unwilling, by the public agency above referred to. The law should provide for the use of either a civil or a criminal proceeding, the court should be equipped with a staff of probation officers or other social case workers and the proceedings should be as informal and private as possible.

3. The Chicago conclusions stated that "the father of a child born out of wedlock should make financial provision for the ade-

quate care, maintenance, and education of the child, having reference to the father's economic condition." The New York resolutions included the statement that "the obligations for support on the part of the father should be the same for the child born out of wedlock as for the legitimate child." Settlements out of court in order to be valid should be approved by the court.

4. After an adjudication of paternity or an acknowledgment in writing by the father, the child born out of wedlock should have the same rights of inheritance as the child born in wedlock, and assumption of the father's name should be permissive.

5. Whenever possible, the mother should be persuaded to keep her child during the nursing period at least.

6. The duty of the state to protect the interests of children born out of wedlock was recognized and affirmed; it should be exercised through state departments having responsibility for child welfare. The parents should not be permitted to surrender a child for adoption, or to transfer guardianship, or to place it out permanently for care, without order of the court or state department, made after investigation. The state should license and supervise private hospitals which receive unmarried mothers for confinement, and all private child-helping and child-placing agencies, giving full opportunity for the development of private initiative.

As an outcome of the regional conferences, the National Conference of Commissioners on Uniform State Laws, organized to draft measures on subjects concerning which uniformity among the states is considered desirable, was requested to take under consideration the legal protection of children born out of wedlock. At the 1920 meeting of the conference a committee on the status and protection of illegitimate children was appointed with Professor Freund as chairman. A report which included a first tentative draft of a uniform illegitimacy act was presented to the annual meeting of the conference, held in Cincinnati August

¹⁰ Massachusetts Laws 1913, c. 563; Minnesota Laws 1917, cc. 194, 210, 212.

¹¹ U. S. Children's Bureau, *Standards of Legal Protection for Children Born Out of Wedlock*, Washington, 1921, pp. 14-19.

24 to 30, 1921.¹² After discussion, the bill was referred to the same committee for further consideration and report next year.

Under the draft, the father is made liable for the expenses of the mother's pregnancy and confinement. The mother owes the child maintenance and support as if the child were legitimate. The father owes the child maintenance and support, having regard to the condition in life of the mother, until the child reaches the age of sixteen years, or if the child is physically or mentally incapable of working, until the child arrives at full age; thereafter the obligation of the father is to be that of a lawful parent under the poor laws. The father's obligation, where paternity has been judicially established or acknowledged by him, is enforceable against his estate, subject to the equities of his widow and lawful children. Agreement or compromise is binding only when adequate provision is fully secured and when approved by a court having jurisdiction to compel support of the child.

SOCIAL MEASURES FOR THE CARE OF THE CHILDREN

Social responsibility for the protection of children handicapped by birth out of wedlock must be exercised along three lines: The prevention of infant mortality; the insuring, so far as possible, of a mother's care and a father's support; provision for children whose parents cannot care for them.

Efforts to reduce the appalling infant mortality rate among these children include: Provision for maternity care—prenatal, confinement and postnatal; care of the mother and infant which will enable the mother to keep her child

with her during the nursing period at least; medical oversight and health supervision, as effective as that deemed necessary for infants of legitimate birth; and effective state supervision and licensing of private lying-in hospitals, boarding homes for infants, and all agencies and institutions caring for children, including the supervision of infants in institutions and of those placed in family homes.

The legal provisions by which some measure of support by the father may be secured, have already been discussed. To insure the child care by his own mother, not only during infancy but also in the years following—in many cases impossible—often involves prolonged financial assistance and careful supervision from social agencies. But a mother's care, whenever that may be secured, is the right of every child, and separation from the mother should not take place except for urgent reasons.

The essentials of adequate care for the many children born out of wedlock for whom no possibility of permanent care by their own parents exists, are the same as for children of legitimate birth who must be cared for by agencies and institutions.

With the possibilities of constructive social action, which may result in a lessening of the problem of illegitimacy and extra-marital sex relationships, a subject calling for earnest and thorough-going consideration, this discussion is not concerned. The development of technique in the study of the mental life and social reactions of individuals points toward future possibilities in social control. But the existence of the child born out of wedlock calls for present action which will safeguard the rights and secure the fulfillment of the obligations of the four parties at interest—the child, the mother, the father and society.

¹² National Conference of Commissioners on Uniform State Laws: Report of the Committee on Status and Protection of Illegitimate Children, August, 1921.

What Can Be Accomplished Through Good Social Work in the Field of Illegitimacy?

By J. PRENTICE MURPHY

Secretary, Seybert Institute

IT is time to ask ourselves the question in our title and imperative that we try to answer it. For a vast amount of thought and service is being expended by an almost innumerable group of people working in the field of illegitimacy—a field which has become very inclusive during the past ten years. Our reactions run a wide gamut as we survey accomplishments in work with and for unmarried parents. They range from the emotional exhalation of the non-critical worker who is concerned only with temporary superficial responses, to the questioning and despair of the thoughtful and highly trained worker who reads into her tasks every pessimistic implication. Human nature at times becomes too much for her and she sees failure as a constant accompaniment to her work. It is the latter type of worker, however, who has the most to teach us—and it is not, on the whole, a discouraging lesson.

The question raised brings interesting responses when put to such trained workers. One of wide experience feels that social work with unmarried mothers is, on the whole, a fruitless and expensive task—save in so far as the children of the mothers are assured protection from bad care and neglect. She also feels that the expense involved in good case work with any large number of unmarried mothers is justified only as a research measure with the view to pointing the way to checks and controls over the causes back of illegitimacy. Another worker who has had many contacts with unmarried parents feels that the results of her efforts as shown in their better conduct, happy

homes, etc., are so gratifying as fully to justify the expenditure of time and money. Still another social worker has observed the difficulty of maintaining long and continuous contacts with very many unmarried parents, because the experiences which have brought them to the attention of the social worker are such that the parents want to shut out the light of publicity at the earliest possible moment.

Our services to unmarried parents consist of certain direct personal services and certain indirect impersonal mass services, the latter group including many of the educational and preventive measures which look to an actual control over and prevention of illegitimacy so far as this is possible.

BASIC ASPECTS OF THE PROBLEM

We must keep clearly in mind some aspects of the problem before us: namely, the basic desire of human beings for sexual experience; the involved and ramifying nature of the sex instincts; the element of constant uncertainty that is so large a part of these instincts; the fact that nature is far more powerful as it works upon any given number of men and women than are these same men and women in any individual, deliberate and thoughtful control they may be able to exercise over their own actions. Sex experimentation, whether in practice or in theory, will necessarily and inevitably accompany the development of every generation. When we add to this constant element within all human beings, the disadvantageous social elements that make up the lives of such a large

portion of our population, we can see that the problem becomes more rather than less complicated. It should further help in our understanding to realize that so far as we know, illegitimacy is one problem with which every group in the past has wrestled unsuccessfully—if elimination is the measure of success.

There have always been those who give birth to children in the face of conventional strictures and unless society perfects and sanctions measures of complete birth control, a step which is highly improbable, these unconventional births will continue to be factors in social life. The process is quite beyond our complete control. Moreover, illegitimate sexual experiences void of the probability of parenthood are more dangerous socially than where the relationship ends in parenthood.

HIGHER STANDARDS IN CASE WORK FOR UNMARRIED PARENTS

But let us see wherein we can make some progress. We can raise the general standard of our social case work, which, taking into account all the agencies doing unmarried mother work, is very low. Careful social diagnosis as a matter of general procedure is unknown to many of the workers in these agencies or, if known, is considered undesirable or impossible of attainment. The Federal Children's Bureau's study of illegitimacy in Boston shows how great is the need for more light, and that this light can come only through a knowledge of the personal histories of many mothers, gained in actual thoroughgoing social case work contacts. We can strive for such a standard that generally over the country no one will be placed in a position of power or responsibility in a society or institution doing work for unmarried mothers, who is not a trained social case worker. We can strive to make the whole process

involved in the separation of a child from its unmarried mother—if such is to take place—a matter for the most careful and sympathetic study and action. We can do much to remove it from the field of emotional action in which it so largely rests at the present time.

LESS HURRIED ADOPTIONS

We can insure that adoptions will never be entered upon hurriedly; that the mothers will have every chance to weigh and review their own decisions, or, what is often quite as important, the decisions of others, involving a permanent separation from their children. We can also insure the passage of sufficient time between the decision to separate and the signing of final papers by the adopting parents. If we submit sufficient evidence as to what happens when these simple checks are neglected we may expect to affect the thoughtless and unconsidered actions of most of our courts in adoption proceedings.

COMPLETE VITAL STATISTICS

The indifference of so many states and communities to the question of adequate birth registration should be one of our first points of attack. Accurate and well-nigh complete birth registration is a matter of routine procedure in most European countries. We can make it so in this country. It is a fundamental part of any child welfare program, especially where the children of unmarried parents are involved.

As it is now, a very large number of children of such parents are never officially born. This is true in a lesser degree of legitimate children. But the neglect on this score in the case of children of unmarried parents makes the continuance of criminally negligent care hard to combat. Every good, social work program for babies necessitates complete birth registration.

ELIMINATION OF THE PROFITEERING AGENCY

We can eliminate the profiteering agency. Some of the worst and most persistent offenders in the heartless job of playing on the fears of unmarried parents and bartering in their babies, are institutions and maternity homes under church control. We can eliminate the mercenary child-placing societies whose work is largely that of "baby snatchers" and who finance themselves through payments not only from the parents but from the adopting parents as well. There is no more disgraceful situation in social work than the easy and continued existence of these types of money-making pseudo-social agencies.

We can insure that every agency receiving babies of illegitimate birth shall give them good care, so that it will be a gateway to life and not to heaven. The mortality rates of a great many societies and institutions caring for these babies have been and are appallingly high. The application of good social case work will prevent this.

Where foster care is felt to be necessary, we can apply good home-finding methods to the task and thereby eliminate the bad homes. We can keep reasonably full records of both history and treatment. We can make it a general fact that social work with unmarried parents shall be restricted to licensed and properly supervised agencies, and that all families taking unrelated babies be licensed and supervised.

INTERSTATE STANDARDS

We can insure that the agencies in each state shall not try to impose on the agencies in other states by unnecessary and unstandardized interstate placements. There should be minimum requirements for all such placements, the

outstanding points of which will be that the babies have been separated from their parents only after due thought and that, so far as can be ascertained, they are physically and mentally well. It is certainly not the task of organizations engaged in this special field to find babies for all the childless couples in the United States. Own children for own parents, is a good motto to follow. Some of us become almost hysterical if we fail to register each day, one child taken from its own mother and placed in the arms of an adopting foster mother.

HEALTH SAFEGUARDS

We can see to it that all that has been said about the supreme importance of good health to the child in his early years, especially the first four or five years, is made a fact. The Federal Children's Bureau's Boston study mentioned above shows how great are the physical handicaps from which illegitimate babies suffer. Every trained social worker knows that numerous so-called social agencies are responsible for the imposition of a great many of these handicaps in hundreds of communities. The best in medical care should be given to these babies and, difficult as this task will be, it can be done.

We should do a great deal for the parents in regard to physical examinations and also medical care, when the latter is needed. Certainly there should be the greatest accuracy and thoroughness in examinations for venereal diseases and in their treatment. The importance of such care will make it necessary for an extension of work on the part of the larger centers of population in any given state so as to provide special services for mothers whose own homes are in the less populated and more rural districts. The long time follow-up work needed where

syphilis or gonorrhea is present is a health task that we simply cannot ignore. Testing for the presence of these diseases should be a routine matter in each case.

The development of good case standards by hospital social service departments will make possible their doing a very fundamental health work, which is now in many instances going by default. In this connection, it should be observed constantly that social case work in all of its phases, in social service departments and elsewhere, suffers considerably because practically the whole job is now being done by women. The lack of men case work practitioners must be met, if at all possible.

CONTROL OF FEEBLE-MINDED GIRLS

The factor of feeble-mindedness in mothers in relation to illegitimacy is something against which we can contend with increasing success. It is a fight that will lead to the discovery of mentally defective girls before pregnancies result. No social case work phase of the illegitimacy situation in any community will yield more immediate results along preventive lines than the early and accurate diagnosis of the mentally unfit and, particularly, the socially unfit within this group, and the securing of their proper care. The problem of the feeble-minded unmarried father is very negative. He possesses no courting abilities; his earning power is low; he cannot treat and entertain or pay for entertainment—hence he is left very largely out of the running. If we can protect the uncontrolled feeble-minded girls and women, we shall have won one of our hardest fights. Good social case work will be needed to orient and define just how far it is safe to permit community life for certain types of feeble-minded females. A whole series of case studies

of women in these groups must be made to bring out under what conditions and under what pseudo probation restraints illegitimate parenthood, at least, may be avoided.

SOCIAL WORK IN THE SCHOOLS

We now come to a group of mass or indirect services which many social workers feel will have a more lastingly preventive effect on illegitimacy than all the other forces and activities named. Social case work must be applied in the public schools from the very early grades if we are to grow a race of adults that will approach sex matters with a trained and educated point of view. As has been pointed out by leading school men, the public schools bring large masses of children together in hitherto unknown ways and release interests and desires which have the sweeping power of a flood. Adolescents have always, to a certain extent, experimented with their sexual functions. The massing of thousands of adolescents with no special machinery for their proper social diversion simply increases the number of experiments. That there are such experiences is a matter not for surprise or priggish horror but for calm and thoughtful study.

We are beginning to get light on the sex lives of so-called normal men and women. To a very surprising extent, thoroughly reputable adults reveal that in their adolescent years they indulged in sex relations—often out of curiosity and, in general, with no permanent ill effects. They lacked adult instruction, guidance and understanding, and sought the nearer and more easily understood statements of their own age groups. Just so long as the co-educational high schools offer few protections and few opportunities for calm and wise treatment and understanding of the irrepressible sex inter-

ests of growing children, just so long will a considerable stream of illegitimacy flow from these same schools. According to the statement of those who know, it is already quite large.

Social case work in the public schools is one of the most productive and far-reaching opportunities before social workers. It is certainly not the socially pathological task which best describes most of the work that has to be done by agencies working with unmarried mothers. Work in the public schools will surely result in the early draining off and diagnosing of the serious conduct cases—the mental cases and the social misfits.

We can do much in the field of recreation, the full social effects of which most of us misunderstand. Social work applied to recreation will not mean the paternalistic control over individuals which we seem sometimes to advise, but it will be an adequate and proper supervision of the forces of recreation by public authorities. It is useless for us to permit the existence and operation of recreational centers which by suggestion and open acts invite the breakdown, on the part of the individual, of wise and necessary social control. On a purely case work basis, we can prove that the conducting and supervision of recreational activities is a public and not a private task. We can also prove that the element of private profit in the field of recreation makes for the existence of many special evils which are found so frequently in illegitimacy problems. Recreation is as much a public function as is education.

POSSIBILITIES IN INDUSTRY

Social case work as applied to industry will make increasingly clear the relationship between fatigue and sex delinquencies; between types of industries which are bad social risks and the

wreckage thus caused; between sex hygiene in the industry and industrial efficiency. From many stories gathered from many unmarried mothers, industry takes little responsibility for preventing the existence and the continuance of destructive social forces within the job or office, which finally bring a girl to her social ruin. Little thought is now given to supervision in this field but as industry broadens itself, by social case work contacts through employment managers and directors of personnel increasing opportunities will be offered for making clear a social responsibility resting upon the employer, which, if carried out, will result in a very definite decrease in certain types of illegitimacy.

POSSIBLE GAINS THROUGH SEX EDUCATION

Social case work as applied to the field of sex education has limitless possibilities. We have only begun to see wherein a wholesome knowledge of sex, beginning with the very early years of childhood and continuing all through life, will tend to supply fit substitutes for much that is unwholesome and dangerously experimental and which is so very common in the life of today. One looks almost in vain through the histories of unmarried mothers for evidences of wholesome and normal sex understandings. An almost inevitable factor in each case is a degree of ignorance about life and reproduction and the significance of the love element in life, which can be removed and will be removed if only the right forces are brought together.

As we project further studies into the field of child welfare, we shall come to see with increasing clearness the dangers involved in the mass care of dependent and delinquent children. We can now see with accuracy how great is the damage being done today

through the foster care being given by institutions and placing-out societies to many thousands of children scattered all over the country. From the best of evidences obtained through careful case studies by good agencies, the total damage must be very great. Some day more of us will come to see that the mass care of girls having histories of sex delinquencies should be a last, rather than a first plan of action. For one cannot devise a more dangerous remedy for a girl so handicapped than an introduction to a large group of girls practically all of whom have had the same sort of experience.

IMPROVED LEGAL PROCEDURE

We can affect the legal procedure with reference to illegitimacy cases so as greatly to minimize its destructive effect upon the mothers who must come under it. Social case work within the courts will help to supply the elements of sympathy, imagination and understanding, the absence of which makes many courts serious anti-social agencies from the standpoint of a good illegitimacy program. Greater privacy can be assured and the influence of women judges and social workers can be felt more continuously in the sessions of the court. Certainly in the estimation of many thoughtful social workers, the present general judicial procedure creates rather than dispels difficulties in the work of social treatment, and likewise has very serious effects on the mental life of many mothers. Furthermore, as social case work tends to socialize the methods of the court it will likewise tend to affect the means that must be followed not only in getting orders for support on the fathers, but in seeing that adequate orders are made and that their collection does not result in such a large burden of non-payments and irregular payments to be borne by the mothers.

The financial risks should be assumed by the community in which the court sits.

We are prone to set before ourselves social case work standards which can scarcely ever be realized. It will be of value to any one of us to record, as the Boston Conference on Illegitimacy has done, the total social and financial costs involved in the treatment of one case of illegitimacy and then to multiply this by thousands in order that we may get the full picture of what a reasonably well done case work job for all mothers in a given community would involve. It likewise will pay us to review the results achieved in a group of fifty carefully studied and supervised unmarried mothers, let us say, in order that we may get a proper set of values and a proper perspective on the various tasks that have to be performed.

It is my opinion, after careful deliberation, that, on the whole, the more thoroughly we do social case work for unmarried mothers, the more truly will we be forced to work back step by step to the causes of illegitimacy and to the control or elimination of a great many of these causes. It is a fact that work for unmarried mothers involves the attempt at an unpleasant and irksome control over individuals (largely adults—at least in their experiences), such control being permitted for the time being simply because of the specific social handicap under which the mother is laboring. Much that we try to work out through our social case work supervision, involves mental and social readjustments that few individuals are capable of making. Herein lies one of the great obstacles and difficulties in work with unmarried mothers. We arrive, in all but a few problems, at a period in the mother's life which does not permit our affecting her actions, her thoughts and her daily processes to any very great extent.

What she is, she will be. It would, therefore, seem to be true that the more thoroughly we do our social case work, the more we are going to break away from repressive personal controls and get out into the broader fields that lie in education, health, recreation and proper training of children during early years.

We speak of long continued supervision as a necessary accompaniment of good social case work. Each social worker knows from actual experience, however, that with new work coming on day by day we do not possess the workers or the funds to give this suggested type of supervision to more than an infinitesimal number of mothers.

Moreover, as we study our social case work material through periods sufficiently long, we shall see that, if the mothers are of normal mentalities the major part of the burden of readjustment rests on their shoulders. Social case work, therefore, applied to the field of illegitimacy is going to supply that fund of information the lack of which we are only beginning to sense. Knowledge here will surely mean power—power that will lead us to a more economical use of resources and equipment so that by careful work with all growing children we may prepare more of them for the opportunities and privileges of a deliberate and responsible parenthood.

The Development of Social Work for Child Protection

By C. C. CARSTENS, PH.D.

Director of the Child Welfare League of America

THE field of social work for children is extensive and complex. Perhaps no other has as many ramifications that cross over into other fields. In no other, have more specialties been developed.

In spite of the varieties of services which are included in this field, the various divisions have on the whole had a steady and untroubled course of development. Institutional care of children, child-placing, juvenile probation and infant welfare have all come into public recognition, have found each its province in relation to the rest and have developed coöperative relations with the other social agencies with which they came in active contact, all with little friction, controversy or discussion. The newer arrivals in the children's field, such as the visiting teacher, the vocational guide and the child-health visitor seem to find an appreciative clientèle and are establishing

their permanent relationships without difficulty.

The child protection movement alone of all the specialties, seems to be a field full of divisive controversy. The nature of its work is so vital to the maintenance of the family tie that the agencies of the movement have had to shape definite, consistent and well thought out policies and to defend them vigorously. When the child is unable to get the proper protection in its own home, children's protective agencies have not hesitated to ask the courts as a last resort to cut the family tie. This course is so abhorrent to certain people who do not realize the menace that a brutal parent or an immoral home may prove both to the child and to the welfare of the community, that it often becomes the subject of bitter legal and public controversy.

Not only have children's protective societies felt the effects of controversy

with their outside critics, but there has also been a very definite diversity of opinions within their own ranks. This diversity is expressed both by holding a different conception of their functions and by adopting a difference in social procedure. The differences, indeed, are so fundamental that the public should know the principles involved, and so take its part in intelligent action at the proper time.

The formal children's protective work is at present vested in large measure with societies for the prevention of cruelty to children and with humane societies. Agencies, both public and private, with other designations also share in a limited way.

HISTORICAL DEVELOPMENT OF THE MOVEMENT

Societies for the legal protection of animals have been in existence in England since 1824¹ and in America since 1866²; but it was not until 1875 that the New York Society for the Prevention of Cruelty to Children was incorporated, the first of its kind, and, strangely, promoted first by those interested in the legal protection of animals.

The New York Society very quickly proved its usefulness. An intelligent and vigorous group of men took an active part in its development. It gained financial and moral support. More effective laws for the protection of children were urged and, on the basis of its experience, placed upon the statute books. It became a powerful instrument, under private auspices, for the enforcement of law and came to be wholesomely feared by the evil-doer.

The establishment of this society was only the beginning of the child

protection movement. In the same year similar societies were organized in Rochester, New York, Newburgh, New York, and every year for many years additional societies took up the work.

Before 1875 humane societies had previously been organized in many cities, that had the protection of animals, old people and prisoners as parts of their programs, with varying proportions of interest. Most of these now added the protection of children to their already quite diverse activities. This work has, however, never become a very important part of the program of humane societies although there are certain notable exceptions, such as those in Cleveland and Cincinnati. With this limitation, the child protection movement in America is represented at the present time by about five hundred societies and branch agencies scattered throughout the United States and Canada.³ England has a very well equipped society and others are found in her various dominions, notably India, and in other countries of Europe.

THE NEW YORK SOCIETY

The efficiency of the New York Society in law enforcement set a standard among the various agencies which most of them for many years in more or less halting fashion have imitated. But beside setting a standard in efficiency, it laid upon the whole movement its own interpretation of function which has proved to be narrowing.

In the minds of its founders, the New York Society was to be an organization for the enforcement of law. It did not concern itself with the causes which lead to tragedy in the child's life or with their removal except as might be incidental to the individual

¹ In 1824 the Royal Society for the Prevention of Cruelty to Animals was founded in London.

² In 1866 the American Society for the Prevention of Cruelty to Animals was founded in New York.

³ In Canada the children's aid societies with government subventions carry on children's protective work.

case. The Society was primarily concerned with the rescue of the child suffering from brutal treatment and living in degrading surroundings, and it presented such evidence to the court that those guilty might feel the heavy hand of the law. This view came to be best expressed and crystallized in a decision handed down by the New York Court of Appeals, January 9, 1900. The New York State Board of Charity had sought to extend its supervision over the work of the New York Society for the Prevention of Cruelty to Children because it was charged by law with such supervision of the work of private organizations undertaking charitable work and particularly, charitable agencies receiving public funds. Since the New York Society had received \$30,000 in the year 1898 from the treasury of the City of New York and since the State Board of Charity considered that agency a charity, it sought to perform its duty by inspecting the Society's building and shelter for children and by supervising its finances and its work. The New York Society thereupon brought suit to prevent the Board from performing such inspection and supervision, on the ground that the Society was not a charity. The Appellate Division of the Supreme Court held it was a charity, and the New York Society appealed to the Court of Appeals which reversed the decision by a vote of 4 to 3.⁴

In the course of his decision Judge O'Brien stated that the "corporation (New York Society for the Prevention of Cruelty to Children) was created for the purpose of enforcing laws enacted to prevent cruelty to children and that is the only object or purpose of its existence"; and Judge Gray added in his comment, "giving it a distinct place from those institutions which being of a charitable, eleemosynary, correctional

and reformatory nature, are made subject to the authority of the State Board."

To this interpretation of its function the New York Society has consistently clung all these years, until very recently. In the Annual Report of the General Manager of the New York Society for 1919 there appears for the first time in its publications an indication of the broadening of its program. This significant passage reads as follows:

The assistance and supervision rendered by the Society in the rehabilitation of homes has continued to be a most gratifying feature of its work. Children are removed from the custody of their parents or guardians only when such action has become imperative, and, in every case, effort is made to encourage in the guardians a proper sense of their responsibility and a determination to reconstruct their homes upon a better standard, in order that their children may be returned to them. Every effort is made to save the children to their homes.⁵

The restricted policy of the New York Society because of its clear-cut form of statement and its preëminence in size and quality of enforcement service, set the pace for most if not all other organizations of this kind. But even when following the policy of the New York Society in general, there were those which conceived their function in the protection of children more broadly and did not hesitate to be called charities or to be supervised by the agents of boards of charities, even if such supervision implied acknowledgment of doing charitable work.

THE MASSACHUSETTS SOCIETY

From the First Annual Report of the Massachusetts Society for the Preven-

⁵ Annual Report of the New York Society for the Prevention of Cruelty to Children, 1919, p. 23-24.

⁴ 161 New York Reports, p. 233.

tion of Cruelty to Children⁶ we quote the following:

The Society is not limited to checking actual cases of abuse and neglect by rescuing the children or punishing the offenders. It aims to inculcate better ideas of child government and in this its efforts are not confined to the brutal classes.

One of our methods of relieving children is to reform the parents. . . . The parents are put on probation, recognizing always the parental rights, and the fact that institution life is not the natural life for children and does not fit them for the best manhood and womanhood. When the home life is not degraded, or can be essentially improved, it is better not to separate parent and child.

The Massachusetts Society did not consistently develop this point of view which was expressed so early in its existence. In common with many others it was largely influenced in its development by the New York Society. Its law enforcement as a consequence became its most important function for many years. In spite of this, its policies did not require such a rigid separation from relations with all other social effort as the New York Society urged and cultivated. During the last fifteen years there has been a more marked divergence, and the preventive and constructive phases of child protection have come strongly to the front in its program. In this same period of time, other children's protective agencies have also recognized more clearly the importance of the preventive phases of their programs. Among those showing this tendency most strongly are the societies in Philadelphia, Brooklyn, Newark, Buffalo, Cleveland, Detroit, Minneapolis and more latterly, Cincinnati.

⁶ Annual Report of Massachusetts Society for the Prevention of Cruelty to Children, 1881, pp. 20 and 22.

RESTRICTIONISTS VS. LIBERALS

These two interpretations have led to much controversy within the membership of the children's protective movement. The restrictionists have maintained a separate annual meeting in connection with the American Humane Association, a day and a half being set apart for the discussion of subjects relating to the protection of children, while the rest of the time is given to the discussion of animal protection. The liberal wing, which is still small but seems to be growing in numbers, is, on the other hand, allying itself actively with the Children's Division of the National Conference of Social Work, because there only does it get an opportunity to interpret its principles to thousands of social workers who are actively interested in the protection of children and who are daily working for their betterment.

These diverse positions have led to many other more important diversities in development. The restrictionist group, considering themselves, first of all, agents for law enforcement, have recruited their paid personnel from the ranks of truant officers, deputy sheriffs, constables, poor officials or other public agents. This is particularly true where the work done is not extensive and only part of the time of the official is taken for the children's protective service. Such limitations in the personnel tend to emphasize a restricted program, with the result that in many cities and states the children's work of humane societies is so limited in extent, viewpoint and effectiveness that the citizens either do not know that it exists or have ceased to depend upon it for tangible results.

PRESENT STATUS OF THE MOVEMENT

There are no reliable statistics showing the extent of children's protective

work in America, but an intimate acquaintance with the history and extent of the movement leads the writer to the conclusion that this service, which is largely under private control, is being increasingly supported from the public purse and that if public subventions should cease, many of the "humane officers," in whose hands rests the protection of children of the nation, would close their offices and seek other jobs. A large majority of the five hundred or more societies have not now and probably never have had the financial backing or support to maintain themselves by private contributions and income from investments. In a number of states humane societies receive part of their support from fines imposed by the courts and from fees.⁷ Many of the children's protective societies listed by the American Humane Association do not respond to letters and have become "inactive." It may be inferred from this and other reports that a considerable number included in this list are not functioning actively in child protection or are largely paper organizations.

This is not a very satisfactory prospect for the protection of the children of the nation. The program of the New York Society appealed to the imagination and humanity of thinking people of the decade after the Civil War. A number of strong societies sprang up, prospered and have continued to render good service in this field, but the precarious existence of the movement in most parts of the country is ample cause for serious consideration by philanthropist and ordinary citizen as to what the future of the movement shall be.

The New York Society deals with about 18,000 neglected children a year, and the Massachusetts Society, being organized on a state-wide basis, with

⁷ Dog taxes maintain a considerable number of humane officers in Ohio.

about 15,000. City and country both seem to furnish their quota of neglected children and there are few communities where some active work for their protection is not needed.

PROTECTION OF CHILDREN A PUBLIC DUTY

In all of our states, public provision has been made for the protection and training of delinquent children and in many of them the state is beginning to recognize its public responsibility in the care of children who have become dependent through poverty, sickness or other accidents of life. These states, either directly or through county units, furnish assistance to good mothers to maintain their children with them or provide the children with institutional or family care.

Important as this work is, the protection of children from brutal parents and from degrading surroundings is equally a public duty which states cannot continue to shirk without endangering their moral welfare and their financial prosperity. It is an accepted fact that the prevention of delinquency is largely a prevention of juvenile delinquency. And it can be equally well shown that it is the poorly functioning home that provides the conditions out of which come a very considerable proportion of our delinquent boys and girls. This is the stake that each intelligent community holds in tactful, persistent and energetic child protection. Here and there evidence may be found that child protection is thought of as a public function, such as the establishment of state departments for child and animal protection and state boards of children's guardians. The continuous appropriation of subventions to private children's protective societies can be interpreted only on the basis of their work's being considered a proper public function.

CHANGED EMPHASIS IN CHILD PROTECTION WORK

The first twenty-five cases reported by the New York Society might be analyzed as follows: Beating or other physical cruelty, 13; children begging and accompanying an organ grinder, 2; children sent out by parent or guardian to beg, 2; attempted assault, 2; abandonment of child, need of medical care, child found intoxicated, child living in immoral resort, father not supporting child, and commitment to institution without court action, 1 each. A little later the protection of little children from the cruelties attending the training of young acrobats became an important part of that society's work. These are all important tasks in the process of child protection. They were largely concerned with the physical care of the child. The less obtrusive and equally important services, to safeguard the child's training and morals, were but slightly represented; but these have now become the most important part of the program of any well equipped children's protective agency.

The brutal treatment of children has been much reduced, partly no doubt because of the work of children's protective agencies, and the more preventive phases have come to the front. An analysis of the case work of the Massachusetts Society in a recent year showed that only 6 per cent of its cases dealt with cruelty, which played such an important part a generation ago.

It is clear, then, that with the better comprehension of the dangers to child life, the program of child protection must necessarily broaden as well as become more fundamental. A community that would give its children who have not proper protection at home, the safeguards to which they are entitled, should have an agency with the

physical equipment and personnel commensurate with the task.

Child protection is rarely all done by a single agency. Often many public and private agencies contribute to the carrying out of a comprehensive program. It is customary, however, for the community to look to the children's protective society for the largest part of the work and for leadership, provided there is one in existence.

A PROGRAM FOR CHILD PROTECTION

In every community the following services must be rendered by some agency to ensure for all the children, "a square deal."

1. Children must be protected from physical brutalities. Though these are less numerous than before, they are always degrading even when not dangerous.

2. Children must be protected from early exhausting and degrading labor. The public now generally frowns upon the child acrobat, but child labor is still in great demand and seems in better standing since the War.

3. Children should receive suitable physical care at the hands of their parents and guardians. This includes proper medical and surgical care, recommended by physicians of standing in the community. While an honest difference of opinions is found on certain medical questions among medical men, children's protective agencies have rarely undertaken to enforce medical care where there was clear disagreement among practitioners of unquestioned standing.

4. Children, and particularly girls, need a vigorous agency in every community for their protection from early sex irregularities. The prosecuting attorneys of many communities are learning to render this protection, but in most places the prosecutions for sexual abuses to girls below the age of consent

are apt to be either futile because their testimony is poorly used or brutal and demoralizing to the girl witness. Courts should be required to modernize their procedure so as to give greater protection to the girl without removing reasonable safeguards for the accused.

5. Children should also be protected from immoral associations even where they are not directly concerned in immoral acts. This depends in large measure upon an active coöperation with the police departments of our communities. Most police officers are not appealed to in vain where the welfare of the child is involved, if they can see what it means to the child and if what is asked is legal and reasonable.

6. There may be a difference of opinion as to whether a man should support his wife under all circumstances, but there is none as to the responsibility of a father to support his children. To leave children dependent in a community is coming to be recognized as a crime whose effects are registered upon mind as well as body. The limitations which state lines bring to the enforcement of laws against abandonment and desertion are very serious. Perhaps a satisfactory solution of this problem will come only when the Federal Constitution makes it possible to enforce domestic relations in Federal Courts.

7. The child born out of wedlock needs an active agency in every community to safeguard his reasonable rights. Our communities are beginning to render this service, notably the state of Minnesota. One of the services is the enforcement of maintenance against the father, either by court action or by voluntary acknowledgment of paternity.

8. Crippled children and others suffering from physical or mental defects must be given all the opportunities and training that the science of medicine

and the art of education can provide, so that as far as possible they may become self-supporting citizens. Where this is impossible, they should have the protection of good public or private care. This does not preclude a good children's program from urging all reasonable measures for the elimination of the unfit.

9. Children should be protected from constant contact with habitual gamblers, drug users and criminals.

NEED FOR A PUBLIC CHILD PROTECTING AGENCY

But it is not enough that measures be taken for the enforcement of these standards, which are already largely expressed in the laws of our various states. Each one of our communities needs to have an agency that is alert to its changing needs in child protection and that, without running off on every possible tangent, will stand for a reasonable and well approved program. Such an agency would assist its community or state in becoming sensitive to children's needs, and would work with other agencies in the shaping and carrying forward of a complete social program for children who require intervention in their circumstances because of their own misfortune or the misfortune of their parents.

If this program is to be carried forward with any reasonable success over any considerable area, the state in its public capacity must step in to assume at least a part, and that, probably the largest part in the undertaking. Here and there certain of these tasks are already undertaken by a public agency. Boards of children's guardians in the District of Columbia and in West Virginia now include limited children's protective programs in their work.

The withdrawal of the Humane Society from the field of child protection has in certain cities led to the de-

velopment of a limited program of child protection in connection with certain active and well equipped juvenile courts. The Juvenile Court of Chicago is the best illustration of this tendency. But the juvenile court does not seem the logical place for locating this responsibility. The trend of child protection is toward an early recognition of menacing conditions. Instead of having most of its work adjusted by court action, a well equipped agency requires court action in a decreasing proportion. It is therefore more suitable to have such service rendered by a state agency with county or district units of service.

Just as in the care of dependent children private agencies are rendering a valuable supplemental service wherever a public agency has become active

in their care and placement, so in the field of child protection the private agencies can be equally valuable. Such private societies become experimenters, moulders of public opinion and anchors for the maintenance of good public ideals and standards.

The child protection movement of the humane societies has on the whole reached such a precarious position that it is no longer performing its public function in any adequate manner. A few strong societies, chiefly located in large cities, have met the need, but largely with a restricted program. It is of the utmost importance that a new public service in child protection should be created, or, where it has already begun, that it should be extended to give all unfortunate children "a square deal."

Problems of the Colored Child

By EUGENE KINCKLE JONES

Executive Secretary, National Urban League

IN public recognition Negroes represent a *class* as well as a *race*, and inherit the status fixed for both class and race divisions of our population. Without affirming any differences in instinct, racial traits or family structure, it is a fact that the problems of the colored child have special and distinct features. His problems are not only the regular and expected problems familiar to social workers given greater volume and intensity because of the economic class to which most colored children belong, but they are these problems further complicated by the circumstances of the Negro's social status, which limits his participation in the normal scheme of adjustment. With more than 70 per cent of the Negro population of ten years of age and over classed as wage earners and

over 70 per cent of these wage earners classed as unskilled, Negroes constitute an economic class upon which the burden of child rearing falls hardest. The factor of race intensifies these difficulties by the addition of others.

THE PROBLEM OF ILLITERACY

The heavy illiteracy rate among Negro children, especially in the South, is frequently taken as an evidence of native backwardness and parental indifference. Granted that both of these alleged causes are factors worthy of consideration, there is still a frightful inadequacy in school facilities which renders them insignificant deterrents by comparison. In 1910 the per cent of Negro illiterates ten years of age and over was 30.4. The percentages varied with the states from 7.9 per cent in

New York to 38.7 in South Carolina. In these figures is reflected not only the influence of the compulsory education law but the provision, or rather lack of provision, for school facilities as well. For example, whereas New York has compulsory education and provides the same schooling for Negroes as for whites, South Carolina maintains separate schools in which the average yearly expenditure for each white child is \$11.14 as against \$1.25 for a colored child. Not only are colored children not urged to attend school, but there are not even enough school buildings to accommodate the colored children who apply for admission. In South Carolina, for example, 39.2 per cent are out of school; in Florida, 47 per cent and in Louisiana, 56.4 per cent. Monroe N. Work, editor of *The Negro Year Book*, has estimated that on the basis of a nine months' school year it would take a Negro child 22 years in Louisiana, 26 years in Alabama and 33 years in South Carolina to complete an elementary course.

These handicaps are maintained in many sections through the strength of a very common belief that education unfits Negroes for the real labor for which they are destined; that placing them in school would interfere both with the planting and the harvesting of crops and that a more equitable distribution of funds would prove unfair to white tax-payers. These opinions prevail in spite of the very persistent warning of students of the problem that the lack of this schooling and discipline eventually registers itself in dependency, delinquency and crime, which in time entail a greater financial and moral burden on the state.

EDUCATIONAL PROBLEM IN THE NORTH

In the North there is also an educational problem for colored children. The northward movement of Negroes

since slavery and the migration of a half-million Negroes from the South following the outbreak of the World War, have brought thousands of children from the wretched schools of many sections of the South. When reclassified according to the more regular and rigid requirements of northern schools they become over-age pupils—large, awkward children, ranging in ages from thirteen to eighteen, in classes with children of seven and ten. The severe embarrassments to them increase truancy problems, delinquency and rebellion against home and school discipline. In 1915 a study of five hundred Negro children in the New York public schools, which accommodated the largest number of children whose parents represented the new-comers, revealed that 60.5 per cent of the normal children were over-age for their grade. Some had entered school there for the first time at the ages of twelve and fifteen.

A similar study in 1920 by the Chicago Commission on Race Relations disclosed practically the same condition in Chicago. It was further disclosed, however, that where the children remained and provisions were made for the ungraded pupils, they reached their normal grades in two or three years.

INFANT MORTALITY

One of the most serious of the special problems is that of reducing the high infant mortality and the prevalence of diseases among colored children; for in this is reflected the conditions under which they must live. The startling disproportion in the infant mortality rate between white and Negro children emphasizes public ignorance and negligence. The infant death rate among Negroes is enormous, in some cities mounting as high as 200 infant deaths per 1,000 births.

According to figures of the Metropolitan Life Insurance Company, which numbers among its members one-sixth of the entire Negro population in the United States, the Negro death rate among its industrial policy holders is 60 per cent greater than that of the white. Tuberculosis, preëminently a disease of young people, takes a heavy toll. For colored boys insured by the company, this rate is eleven times higher and for colored girls, eight times higher, than the rate for white boys and girls, respectively, of the same age period. Malaria, typhoid fever, syphilis and hookworm also have a disproportionately high sickness and death rate. Louis I. Dublin, Chief Statistician of the Metropolitan Life Insurance Company, in presenting these facts before a conference of the National Urban League, said: "Whether we look at the records of the draft examinations or the figures of mortality among policy holders of the Metropolitan, we find the same fact in evidence; namely, very much higher rates among colored persons from those diseases and conditions which reflect the sanitary conditions of the environment." Practically all of these diseases carrying such a heavy death toll can be checked through closer attention to sanitation, water and milk supply, food handling, garbage disposal, general housing conditions and instruction in personal hygiene. The Metropolitan Life Insurance Company, through encouraging efforts along this line has helped to reduce the death rate among its colored policy holders 9 per cent in eight years.

In New York City alone, the colored infant death rate is 164 deaths per 1,000 births as against 82 per 1,000 births for whites. Twice as many Negro babies die each year as white babies. Although the white population is more than thirty times that of

the colored, only seven times as many white boys and girls as colored boys and girls under fourteen years of age, died in New York during 1920.

The general Negro death rate is 21 per thousand as compared with 12.88 per thousand for whites. The expectation of life for white males is 46 years; for Negro males, 37 years; for white females, 52 years; for Negro females, 39 years. Thus the colored child starts out in life under a handicap, as the forces that make for longevity are less apt to be associated with his environment than they are with that of the white child.

These figures suggest, too, a lack of centers for instruction, and lack of participation in the existing agencies designed for this purpose. An intensive campaign of education and a constructive program of service to reduce Negro infant mortality in New York City conducted in 1915 by the various social agencies there, led by the City Department of Health, resulted, in two years' time, in a reduction of Negro infant mortality from 202 per 1,000 births to 173 per 1,000 births.

COLORED CHILDREN IN "COMMUNITIES OF THEIR OWN"

The obvious difficulties for colored children in connection with the unsanitary quarters in which they are placed are but a part of the problem. Negroes whether in the South or North are, in the main, most effectually isolated from the rest of the community in what many persons are fond of referring to as "communities of their own." Here deterioration is permitted to proceed without the bolstering influence of municipal regulation or private capital. They are the "Negro quarters" and consequently neither force nor merit attention. In many southern cities municipal neglect has become notorious. In northern cities these Negro

neighborhoods become a dumping ground for the vicious and demoralizing agencies of the city, white as well as black, which seek such places because of their immunity from police interference and effective public protest.

A report of the Chicago Vice Commission, deprecating the forced association of the Negro population with vice, said:

The history of the social evil in Chicago is intimately connected with the colored population. Invariably the largest vice districts have been created in or near settlements of colored people . . . so whenever prostitutes, cadets and thugs were located among white people and had to be moved for commercial or other reasons, they were driven to undesirable parts of the city, the so-called colored residential sections.

No discrimination is exercised in the classification of Negroes. They are all "Negroes" and their children must live within these confines exposed to the undermining influence of the vicious elements of white as well as colored crime and corruption. How active these influences are may best be observed from a study of the juvenile delinquency figures for Negroes.

PROBLEM OF JUVENILE DELINQUENCY

In New York, the Negro population is 2.7 per cent of the total population of the city. In 1920 Negroes contributed, however, 3.3 per cent of the juvenile delinquency. In Chicago, the Negro population is 4.5 per cent of the total; in 1920 the Negroes contributed 9.9 per cent of the juvenile delinquency. The officer of a juvenile court in one of the large cities of the north in explaining the higher delinquency rate among Negro children attributed it to "the crime breeding environment in which they have to live," lack of privacy at home, working parents and consequent lack of home supervision.

It should be stated, however, in defense of the normal law-abiding inclination of the colored child that in New York City in 1915, colored children contributed only 1.7 per cent of the total juvenile delinquency while the Negro population was over 2 per cent of the total population of the city.

Social studies recently have been pointing out the relation between delinquency and recreation. The provision of playgrounds and recreation centers in Chicago, for example, reduced delinquency on an average of 44 per cent in the sections over which their influence extended. A Cleveland study discovered that in 75 per cent of the cases of delinquency there was a direct relation between this delinquency and the children's spare time. Thus another problem with Negro children also arises from the general absence of recreational facilities in Negro environment.

The Harlem section of New York City in which more than 75,000 Negroes live, has not a single regularly equipped playground. Chicago playgrounds practically skirt the Negro residence areas and in two instances, where large publicly maintained recreation centers are located on the edge of a thickly populated Negro neighborhood, the hostile sentiment and intimidations by whites who visit the centers prevent any use of them by Negro children.

The lack of these provisions is not wholly due to deliberate neglect. Negroes, it must be remembered, usually live in the oldest sections of the city where property values have declined to the size of their purses and where improvements usually have ceased. General community improvements, as well as new recreational centers, are usually placed outside of such sections.

But there are other factors entering

into the delinquency problem. A prominent cause assigned for delinquency among Negro children is parental neglect. Much of this has been forced by the necessity for both parents to work. The economic struggle thus manifests itself. The wife must supplement the income of the head of the family. In cities where there is lax enforcement of the compulsory education laws *or no such laws*, the children themselves are pressed into the service of supporting the family. Although this is more patently an economic than a racial question, the pressure of this necessity is more widely diffused among this group because relatively it comprises so large a section of the whole.

ECONOMIC OPPORTUNITY

The incentive for continuing in school is much dampened by the apparent lack of opportunity to utilize special training. The doors of industry and business are effectually barred against Negroes except in the lower and more menial branches of work. Persistent effort to extend the field of opportunity by Negro organizations and the necessary admission of Negroes to many coveted positions during the labor scarcity of the early days of the War, have accomplished some advancement in this line but the major difficulties are still but slightly affected. Such was apparent in a study recently made of Negro women in industry in New York City. In the group of colored women studied were many who had completed elementary school courses, high schools and colleges. But whereas of the white and colored women studied 8 per cent more colored had finished elementary school and 9 per cent more had attended high school and college, but few of the colored women had been able to use their special training. The report states:

But few of the specially trained women found work in the trade for which they had been prepared. Occasionally they found their niche through the placement department of the schools and sometimes through personal initiative. Nine trade-trained women entered the Post Office Department under civil service examination. Others, discouraged by seasonal fluctuations and the handicap of color, took places as ladies' maids, elevator operators, etc.

One would have to wait in an employment bureau for many days to hear of even one request for a colored bookkeeper or stenographer. Yet a number of women had been specially trained as stenographers. These finally entered factories doing unskilled, monotonous work—their spirits broken and hopes blasted because they had been obliged to forfeit their training on account of race prejudice. School teachers were among these new recruits in both skilled and unskilled industries. Some had been grade teachers, two had taught in high school, and one had been a supervisor in a normal school.

SUGGESTIONS OF OTHER SPECIAL DIFFICULTIES

It is apparent that problems of the Negro child are special only in so far as the general attitude of the public, influenced by traditional racial sentiment, has operated to make them so. When Negroes are isolated from the rest of the community as a group different and distinctive with a mode of treatment for them already outlined, neglect and indifference are expected. For they are more an appendix than a functional part of the community. Thus it is that general social organizations as a rule conduct their activities over the heads of the Negro community, which is by no means separate and distinct by choice.

In Cincinnati, for example, where the Negro juvenile delinquency rate is 12 per cent of the total while the Negro population is only 7 per cent, probation work touched but fifteen Negro

cases. The Juvenile Protective Society of Chicago does not cover the areas of Negro residence. Movements like the Boy Scouts, Girl Scouts, Brotherhood Republic—character builders of youth—indifferently touch the lives of Negro youths.

When the seriousness of Negro cases reaches the point of demanding institutional care, other difficulties appear. In most northern communities colored and white children are accepted by the same institutions. Usually the proportion of Negroes is smaller, both in proportion to the Negro population and in proportion to the cases of Negroes requiring institutional care. For Negro feeble-minded there is little care in the North and practically none in the South. The superintendent of one northern institution for the care of feeble-minded expressed a view that many Negro children thought to be feeble-minded were not really so, but only appeared so by comparison with white standards! How far this misapprehension, undoubtedly shared by others, has operated to affect the volume of present Negro feeble-minded in institutions, it is impossible to say.

Commenting on the alarming inade-

quacies throughout the country, and especially in the South, Hastings H. Hart, Director of the Department of Child-Helping of the Russell Sage Foundation, says:

This is a matter of great moment because the neglected feeble-minded colored children swell the ranks of paupers, criminals and vicious persons, and also spread social disease. It appears to me extremely important that the southern people should become aware of the fact that in neglecting the colored children they are hazarding the interest of the white population almost as much as that of the Negro population.

Appeals for participation by Negroes in social service programs have been directed on the basis of experiments demonstrating that where Negro children are provided with the same prophylactics their health, crime, illiteracy and dependency rates are reduced to proportions comparable with those of white children. The crux of the problem, however, is the unyielding bloc of public disinterest and opposition which holds fast to traditional restraints, both economic and sentimental, and which makes the Negro's struggle for existence more severe.

Helping the Farmer Through His Children

\$100,000,000 Worth of Children on the Farm

By OWEN R. LOVEJOY, LL.D.

General Secretary, National Child Labor Committee

THE National Child Labor Committee's interest in the country child is no new thing, and yet we still find people to whom it is a shock to discover that farmwork may be considered child labor. For in the minds of many people those words, "child labor," still call up only the pathetic image of a haggard and wizened child

of seven years, or it may be ten or twelve, dragging an enormous dinner pail into a factory at dawn. And it is true that for years the plight of the factory child, or at least the child engaged in those pursuits commonly classified as industrial, has been emphasized almost to the exclusion of all other children. But this does not necessarily in-

dicate that no other children deserve our whole-hearted attention. In fact, it merely indicates that in attacking an enormous problem we have taken one step at a time, for our aim from the very beginning has been to reach every child in America, if necessary.

When the National Child Labor Committee was organized in 1904, the country was just awaking to conditions in our cotton mills; the great coal strike of 1902 had called attention to the numbers of child workers in Pennsylvania coal-breakers; the Consumers' League had recently opened its fight against tenement homework, and the first investigators were going into the fish and vegetable canneries where women and children were working interminable hours. So it was very natural that our first work should be in the interest of these children in industry, of whom the public knew a little. Indeed, it seemed obvious that whatever our ultimate aim, our immediate task must be to collect authoritative information on what the public knew only in the smallest part, so as to turn their interest into real knowledge, and that knowledge into action.

It has been a long, hard fight, so long and so arduous that it appears to be a sad commentary on American civilization; but there is no need of going into details now. The fact is that it is at last established in this country that children under fourteen years of age shall not be employed in factories, canneries or workshops, or children under sixteen in mines or quarries; that no children shall be employed for more than eight hours a day, or at night. In making that statement, however, we do not mean to imply that no children are working under such conditions in this country today, for we all know the vast difference between law and its absolute enforcement. But we do mean to say that the principle, at least,

is established, and that its establishment has allowed us to go on to the next step. For there is still a long way to go on the road of real protection and development for American children.

These minimum standards for industrial workers mean nothing if they are not backed up by good school regulations, health protection, recreational facilities, continuation and vocational schools, and so on. And we are not even sure that the minimum standards themselves are adequate. Many of us, indeed, are sure that they are inadequate and that for the health and well-being of the nation we should keep all children in school and out of industry until they are sixteen at least. But, however that may be, the fact remains that such standards are now established, but that in taking account of stock we find there are thousands of American children at work who are in no way affected by them, American child wage earners of whom America is shamefully ignorant and careless.

NUMBER OF CHILD AGRICULTURAL WORKERS

*One child out of every eight in America, from the ages of ten to fifteen, who is in work not usually called industrial, is engaged in work not regulated by any state or federal statute. And at least 70 per cent of these children are doing some sort of agricultural labor. The census of 1910 lists 259,813 children between ten and fifteen years of age as "farm laborers working out" and 1,157,323 children between ten and fifteen years of age as "farm laborers on the home farm."*¹

We are not making any such ridiculous statement, however, as that all

¹These figures were collected in the month of April. Figures for 1920 (not yet published) were collected in January and will consequently show an apparent decrease, due to the fact that most farmwork is not in progress in January.

farmwork done by children is harmful, *or that all these children listed in the census are in need of protection.* But we are stating most emphatically that too many of these thousands of rural child workers are being deprived of the very fundamentals of a normal childhood; that some of them are actually exploited, even as factory and cannery children have been exploited; and that it is high time we all turned our attention to them, especially if we are as interested as we say we are in raising the standards of American rural life.

For if there is one thing more than another that we have learned in the seventeen years since the National Child Labor Committee was created, it is that child labor is not limited to any one industry or process, or by locality, but that any work which is positively harmful to the child or even negatively harmful, in that it hinders or prevents the child's normal development, is child labor and as such is bad for the child and through him, bad for the community and the nation. That the "child is father of the man" is no idle platitude when one views the inefficiency, ill-health, dependency and general inability to cope with life that follow hard on the heels of a neglected childhood.

And this is the view we believe should be most emphasized in approaching the rural child labor problem. For every agricultural study we have made points to the same conclusion: that the farm child is frequently getting too much work, too little schooling and too little developmental care; that he is too often a mere drudge who will grow up an ignorant, inefficient worker, more a liability than an asset to his community.

STUDIES IN VARIOUS STATES

In 1910 we first investigated the working conditions of the children in

the cranberry bogs of New Jersey, and those among the itinerant berry and produce pickers of Delaware and Maryland. In 1913 we made our first study of the cotton pickers of Texas and found little children working too long hours, living in unsanitary conditions, being kept out of school for the sake of cotton. In 1915 we looked into the situation in the sugar-beet fields of Colorado, and since then we have made intensive studies of various agricultural industries and districts in Oklahoma, Kentucky, North Carolina, Tennessee, West Virginia, California and elsewhere.

In Colorado we found that 5,000 children between six and fifteen years of age were working regularly in the cultivation of sugar-beets, even during school hours. One family, whose seven and eleven year old children both worked in the beet fields, regardless of school, boasted that these children made \$10,000 a year in sugar-beets. Another man said, "My boy is worth \$1,000 for work in the beet season, but he is nothing but an expense when he is in school." The school authorities estimated that each of these 5,000 children missed from two to twenty-two weeks of school a year, an average of nine and one-half weeks each, because of work in the beet fields.

In Oklahoma, where we found children as young as five picking cotton regularly, the average daily attendance at school was only 57.2 per cent of the enrollment, and a study of 174 schools, involving 6,389 pupils, showed that the number of days absent during the year was more than one-third of the total number of days present. The absences of these children for farmwork or housework reached a total of 90,903 days, an amount almost equal to the sum of all other absences, such as those due to illness, indifference, bad weather or distance from school, put together.

In North Dakota the school authorities state that only 30 per cent of the children complete the eighth grade in school, and only 4 per cent, the twelfth grade, while at least 20,000 farm children stay out of school each year for a period of sixty days to help in raising wheat and other small grains.

These are only isolated instances cited to indicate what conditions are throughout the country. Helen V. Bary, of the Federal Children's Bureau, in a recent summary of child labor conditions, outlines the situation as follows:

Undoubtedly the most serious problem of child labor today is that of agricultural work. The evil of the situation is not only positive, but negative—not only the conditions it creates but the conditions it denies. *Rural child labor in vast areas of the United States today carries with it a virtual denial of education.*

CHILD LABOR AND ILLITERACY

Another investigator establishes the following parallel between child labor and illiteracy:

It is well known that the percentage of illiteracy in the country is twice that of cities, one in every ten of the rural population being classed as illiterate. It is not so widely advertised, however, that of the sixteen states having a percentage of illiteracy greater than that of the United States as a whole, fifteen have a foreign population percentage far below 14.7 (that of the United States as a whole), the highest per cent in those states being 8.6, and the average 2.9. And even less advertised is the fact that these fifteen states include all but one of the thirteen states (all southern agricultural states) which have a child labor percentage in excess of the average for the United States as a whole. The parallel is striking and the conclusion obvious. If rural sections, in spite of a small foreign population, have a very large percentage of illiteracy, it is apparent that country children are not being educated; and when we

find that in these same regions there is a large amount of child labor which interferes seriously with school attendance, it is reasonable to conclude that the work of the children is responsible, in part at least, for the lack of schooling. It cannot be attributed entirely to the inferiority of rural education, for even the poorest "little red schoolhouse" can train the child to write—the test of literacy.²

But it is not merely schooling of which the farm-working child is deprived. Anyone who knows rural conditions can tell you that he has the minimum amount of play and recreational facilities, of sanitary living conditions, of health protection and of all these developmental elements that are the very essence of a real childhood—if he has any of them at all. For the poorer the farmer, the more he needs the labor of his children, and the less he can afford decent surroundings or those things which he, perhaps, considers unnecessary but which go a long way toward making life livable and progressive for his family.

In our recent study of rural life in Tennessee, Charles E. Gibbons summarizes some of the differences between the lives of owner-farmers and tenant farmers in that state, and gives an excellent idea of the deprivations which are an everyday fact to the poor farmer's child.

The most striking point in the evidence presented is the wide difference in conditions surrounding the lives of owners' children and tenants' children. Owners have nearly three times as large an income as tenants, although the families are practically the same size. Owner children are not kept out of school to work on the farm as tenant children are. Tenants move about much more; hence they do not have the comforts and conveniences in their homes that they might have if their tenure were longer. Because of the system, tenants are

² *Farm Labor vs. School Attendance*, by Gertrude Folks.

forced to borrow at high interest rates and are thus restricted in the manner in which they may purchase their supplies and dispose of their crops. They get a good deal less from the farm for their tables than owners do. Their water supply is less protected. Fewer of their homes have screens and toilets. Their opportunities for recreation are more limited. They read less because they have less to read. The opportunity that tenants' children have for education, health, recreation and the enjoyment of a normal childhood, is limited. The evidence shows that many of the economic factors which enter into conditions surrounding their lives are below a minimum standard for decent living. This ought not to be for any group of people. According to the 1910 census, tenants comprise a little more than 41 per cent of the rural population of Tennessee. Hence, the problem of giving tenant children their inherent rights is serious, not only because of the extremely bad conditions under which they are living, but also because of the large number involved. These children ought to have a better chance.³

What is true of the tenant farmer in Tennessee is true of the poor farmer everywhere. Our report of child welfare in West Virginia, now in press, the result of six months' careful study by trained investigators, is an appalling record of deprivations and positive dangers surrounding the farm children in that state—a record which goes a long way to prove one point we have been hammering at for many years, namely that child labor is never an isolated evil, but is by its very nature inextricably bound up not only with other problems of child welfare but with problems of adult welfare. The same conditions that produce child labor are those that produce poor, unsanitary homes, inadequate, unattended schools, poor recreational facilities, few books, few papers—in short, the meagre, bleak life that deadens

and discourages. Child labor is a part of that meagre life; it is, alas, in the last analysis, only a partial cause of it, for here we run up against that old, old circle of ignorance, inefficiency, poverty, child labor, lack of education, and so on.

THE SCHOOL AND THE RURAL CHILD PROBLEM

By the same token, therefore, child labor is not a negative problem. If you are going to the root of the matter, it is not enough to say of a child, "He must not work." You must go further than that if you are going to create anything more than a deadlock. You must take a positive stand, and when you remove a child from the drudgery of labor, you must give him, in place of it, its substitutes: suitable schooling, suitable play and suitable work. When you do that, you are not merely cognizant of the present, but you are building on a sure foundation for the future.

This, then, is our problem in relation to the neglected rural child; this is our way of going to the root of the evil, an evil so closely interwoven with the whole problem of bettering rural life today that we of the National Child Labor Committee believe that, in reclaiming a fair chance for country children, we are actually working shoulder to shoulder with every agency and every individual who has at heart the welfare of the American farmer. What can do more for rural development than the creation of a better, more efficient rural population? And what can do more to produce that better population than the protection, education and development of country children?

The farmer's greatest loss today is the loss of his children. They will not stay on the farms if farms to them mean drudgery. They would rather go to town and work eight hours a day in

³ *Child Welfare in Tennessee*, N.C.L.C. 1920, p. 373.

a factory, with a motion-picture house handy for their evening hours, than stay on the farm and work from sun-up to sun-down, with nothing ahead of them for the evening but supper and an early bedtime. If they do stay on the farm inheriting the precarious, hand-to-mouth existence of their fathers, and learning no better ways of farming, their children begin staying out of school to pick cotton or cultivate beets or tobacco, and the thing goes on and on.

But consider what so simple an expedient as a good rural school with *all the children in it for all the term* could do for a community of people of this class, a really progressive rural school that would teach something applicable to the lives of the children, a school with recreational facilities in use, a school where health and sanitation and nutrition are not merely words in the speller. The children coming out of that school would begin to take a progressive interest in farming. The country would not be such a bad place to them; in fact, they would be glad to stay there, for every country child no matter how much he feels the lure of the city feels also the lure of the woods and the fields and the wide, open spaces, if they are not connected too closely in his mind with hard, unrewarded labor. The children coming out of that school would see to it that their houses were decent to live in. They would demand books and papers and would see that their children went to school. They would be the kind of farmers that are interested in improved methods, in better ways of marketing—in short, the kind of farmers we want. Can you imagine a surer way of raising the standards of a rural population than through a really effective, rural school?

THE ECONOMIC INTERPRETATION

But, we are told, all this sounds very well but it is not practical. This is an

economic problem, and the farmer works his children and keeps them out of school because he has to do so in order to scrape a bare living. Until you pay him a decent price for his products, he must continue to employ his children, utterly regardless of all this high-sounding talk of education. Very well. We are ready to admit that there is an economic interpretation of the problem, and we are as anxious as anyone to find the solution of the economic puzzle.

It is true that this argument that child labor is "necessary" has been offered in relation to every industry we have ever touched, and we have yet to see it proved. It is true, also, that we have never been willing to believe that any industry or any condition that exists at the expense of childhood has a right to exist in a supposedly civilized age. But, setting these things aside for the moment, we are so interested in the economic aspects of the question and so sure that our plan has a real economic significance, that we are quite ready to talk to the farmer in wholly practical terms about it; to interpret it for him, if he wants, in dollars and cents.

It is perfectly true that to the hard-pressed farmer his children have an actual cash value. The Colorado man who said that his boy was worth \$1,000 in the beet season but was nothing but an expense in school, is not alone in this utilitarian view. The southern tenant farmer frankly admits that he tills a certain number of acres in direct proportion to the number of children he has to help him cultivate and harvest them. To the poor farmer anywhere, his children must mean either so many mouths to feed or so many hands on the farm, and you can scarcely blame him for it. But suppose you can show him that school has a greater practical value than work; suppose you can show him

that a child in school now means just so much more return to him later. Will he not then, at least, take an interest in the school proposition? It is merely hard common-sense in any industry, farming as well as any other, to say that a healthier, better educated, more efficient workman is sure to mean a higher value of production either in quantity or quality. The farmer knows enough to look to the future when he spends money on fertilizer that he may get a larger crop, or when he spends money on the right feed that he may raise better hogs and cattle. Why should he not be made to see, then, that it will be dollars in his pocket in the long run to spend a little on the education and care of his children? Is not that practical?

Other people are offering the farmers a \$100,000,000 fund for better marketing of their products and we are glad of it. Everything that helps the farmers' bank account helps our cause. But we believe we are working to an equally practical end, and that our proposition, if we may so call it, is also essentially a \$100,000,000 fund, or more, for the farmers' welfare. Think of it in these terms. There are at least a million American farm children today who are out of school doing work in the fields. At the very lowest estimate each of these children will be worth \$100 more to his parents if allowed to get his full share of school and good health than he can be at present. Is not that \$100,000,000 straight into the pockets of the American farmer?

It is something we cannot legislate, although such things as enforcing school laws, increasing rural school appropriations, paying rural school teachers decent wages, and so on, are all matters direct enough to be put immediately into the hands of the lawmakers. But the greatest gain will be

in educating the farmer himself, in teaching him the value of these things which he now classifies as secondary, making him see that the full development of human resources—children—is essential to the success of any human enterprise. If you cannot speak to him on the higher, spiritual side, speak to him, we say, on the practical side.

All this cannot be done, however, without first knowing the farmer, the intricacies of his problem, knowing conditions as he sees them, knowing the wherefore of everything he does, and no one realizes this fact better than the National Child Labor Committee. Every attack we have made upon child neglect or exploitation has meant first getting the facts, and that is our present business in relation to the rural child problem.⁴

Our new Chairman, David Franklin Houston, who was Secretary of Agriculture in the last administration, has long been a devoted student of rural life. We have on our Board of Trustees such an authority on rural conditions as Professor E. C. Lindeman of the American Country Life Association. We have special agents who are experts on rural problems as well as on all phases of child welfare, and we are ready to go into the facts thoroughly and scientifically.

We are equipped and ready to do a big job. Are not these million or more almost forgotten country children sufficient justification? What an opportunity we have, all together, to make the statement that children are the nation's greatest asset, something more than a high-sounding platitude! And if we really believe this statement, if we are actually a nation that believes in children, here is our chance. Will the American people take it?

⁴See study of Child Welfare in West Virginia, made during the winter and spring of 1920-21 and now in press.

The Development of the Children's Code

By EDWARD N. CLOPPER, PH.D.

Field Secretary of the National Child Labor Committee

SOLOMON says that a good man "leaveth an inheritance to his children's children." He does not tell us what kind of inheritance he had in mind as suitable for children, but he says that houses and riches are the inheritance of fathers, and, as a father, he says to children: "Wisdom is the principal thing, therefore get wisdom; and with all thy getting get understanding." If this means that the proper inheritance of children is wisdom and understanding, then indeed is Solomon wise, for "she is more precious than rubies . . . length of days is in her right hand, and in her left hand riches and honor." Wisdom and understanding come of knowledge and experience, those riches of the mind and heart, and are added unto us through length of days. Here we have the philosophy of child welfare work: a lengthened childhood is the best inheritance we can leave to our children and to our children's children, for it is the way to wisdom and understanding, to riches and honor.

BASIC PURPOSE OF CHILD WELFARE SERVICE

The basic purpose of child welfare service, whatever its kind and whatever its goal, is to prolong the period of childhood. Lengthened childhood is the warp of that fabric we are weaving to shield and equip our boys and girls. On this basis we set up a structure for their good; through this warp we run the woof, the threads that make it strong.

The first threads are all those efforts that make secure the lengthened days of childhood: all the work that is done

to save children from disease and deformity and to promote their health and vitality; the laws, ordinances and agencies that stand between them and exploitation; the measures that safeguard them from abuse; the officers, courts and institutions that lead them away from careers of crime. The second are those threads that seek to equalize the conditions of life for childhood: the steps that are taken to relieve the suffering of the poor and to put down the evil of poverty; that great overflowing of hearts that goes to the care of the unfortunate and the handicapped. And finally come the threads that lead to the heights beyond: the schooling, the training, the guidance and the play that bring education and the joy of life.

Thus it is our task to lengthen childhood, to make it safe, to give a fair chance to those stricken in body, mind or estate, to provide training and recreation for all. Without these things neither the children of today nor those of tomorrow can lay up for themselves the treasures of wisdom and understanding; they cannot inherit the riches whose price is above rubies.

With less than this inheritance for every child we must not be content. No flower is born to waste its sweetness on the desert air. That any waste their sweetness is our fault and we should not cease from striving till every bud unfolds its petals in a world of opportunity. No child is born to a barren life but every one has in him some power, however slight, to swell the sum total of our happiness. Ours is the duty to prepare the way so that he can

use this power; his, is the duty to use it.

The instrument, imperfect and incomplete as it is, that we have devised for insuring to every child as fair a start in life as it is possible to give him, is commonly known as the "children's code." This has developed out of the experience of those who, in various ways, have served the public interest through serving children. Its growth has been gradual, of course, but it is only within recent years that all the accumulated experience has been brought to bear in any logical manner upon the preparation of a broad and coördinated program. Efforts toward this end have converged in an expression of the principles underlying child care, the formulation of standards to govern such care in accordance with modern thought, and the embodiment of these standards into law and practice with such modifications in the different states as special circumstances might require or public opinion dictate. The declaring of principles and the framing of standards clears the air and points the way; it sets up a mark toward which to work and shows why we should strive to reach it. The writing of the standards into the statutes secures to us the enjoyment of our gains as they are won and records our progress toward sound theory and practice.

GROUNDWORK OF THE CHILDREN'S CODE

A striking instance of the attempt to set forth the principles underlying social work and to rear up standards on those principles, occurred in 1909 when, upon the invitation of President Roosevelt, a meeting of representative social workers, since known as the White House Conference, was held in Washington to consider the care of dependent children. The authoritative declaration made on this occasion has ever since been the guide of social workers in

the treatment and care of dependent and neglected children.

Another instance has been the agitation for general recognition of certain standards concerning the employment of children in gainful occupations. This agitation, long carried on by national societies, was given a more definite objective in 1911 when the National Conference of Commissioners on Uniform State Laws approved a standard child labor bill which had been drawn at the request of this body by the National Child Labor Committee. The measure was recommended by the commissioners to the several states for enactment into law with a view to legislative uniformity in this field, and has been adopted, in part at least, by most of our commonwealths, while its fundamental provisions have been written into the law of the nation.

Further, the principles upon which the organization and procedure of juvenile courts are based have been stated, the purposes and functions of probation have been made clear, and standard bills have been drawn by leaders for the use of states and smaller communities in dealing with juvenile delinquents..

Then, at the National Conference of Charities and Correction held in Baltimore in 1915, so much interest was shown in the correlation of child welfare laws and of the work of administrative agencies that an organization was effected to stimulate the children's code movement throughout the country. This organization took the name of the National Committee for Standardizing Child Welfare Laws. At the National Conference of Social Work held in Milwaukee in 1921, steps were taken to make this committee still more representative and useful; it was planned to have this national agency serve not only as a source of encouragement to the children's code movement but also as a

clearing house for information about this movement, and about the activities of all private societies, public departments and bureaus that take any part in it—in a word, to correlate the efforts of those who are seeking correlation.

Finally, in the second year of our participation in the World War, a campaign was carried on under the leadership of the Children's Bureau of the Federal Government for the purpose of wakening in the people of this country a fuller sense of their responsibility to all children and a broader appreciation of child welfare work. This was known as "Children's Year," and, as a fitting climax, there was drawn up at a conference in Washington in 1919, a set of recommendations applying to several fields of child care in accordance with the announced purpose of agreeing upon "certain irreducible minimum standards for the health, education, and work of the American child." It is interesting to note that this was done just a decade after the White House Conference and in the same city; its agenda, however, covered a wider area; moreover, the Washington conference of 1909 was national while that of 1919 was international, guests being present from several foreign countries upon the invitation of our government.

In this international conference, we have a vivid illustration of the spread of the child welfare appeal and a formal acknowledgment of its universality. The organization of the *Congreso Americano del Niño* by Latin-American social workers in Buenos Aires in 1916 as a common meeting-ground for child welfare workers from the three Americas and from the islands of the sea, is further proof of the broad community of interest in all that relates to the well-being of children.

A few years ago, this first part of the children's code movement, the declaring of principles and the framing of

standards, was centered in the agitation for what was called at the time, a "Children's Charter." This was, in a way, an effort to coördinate and foster the different manifestations of goodwill toward children that had grown out of the general interest in their welfare, although it had also as one of its purposes, as its name implies, a statement of the rights of children, a formulating of the principles that lay at the bottom of all these manifestations. So although this proposed charter had in it something of the nature of each of the two parts of the children's code movement, namely, standards and statutes, it was primarily a seeking after bases of action, a quest for fundamentals. It was hoped to get clearly in mind just what were the rights of childhood and then to advance from the expression of these rights to a series of legislative proposals designed to secure them and to promote coöperation in their enforcement. The matter was discussed at meetings of the National Conference of Charities and Correction and of the National Child Labor Committee but the charter, as originally planned, was never drawn up. However, the report of the Children's Bureau Conference held in Washington in 1919, entitled "Standards of Child Welfare," is in reality a charter of childhood; it is an outgrowth of the earlier effort and is well adapted, so far as it goes, to serve the ends of the former plan.

THE LEGISLATIVE WORK

The writing of standards into the law is the more palpable part of the children's code movement and, as a matter of fact, is usually regarded as its only part, for it is the obvious function of a children's code to lay down the law on child welfare. But this is really the crystallization of a process that has extended over a long period of time and

involves all the experience of the race. As attention has been drawn more and more publicly in recent years to the needs of children, a demand for more simplified laws and more effective procedure has arisen and out of this demand has grown the so-called children's code.

It may be said that it had its origin, if anything so evolutionary can be conceded a definite origin, in England. Three acts of Parliament known as the Consolidated Factory Acts, the Consolidated Educational Acts and the Children's Act of 1908, together with the amendments that have been adopted from time to time, especially the Fisher Act adopted toward the end of the World War, form what is practically a childhood's charter in the United Kingdom. The subject matter of the first and second of this group of acts is indicated by their titles. The third is wider in scope and is divided into six parts devoted to: (1) infant life protection; (2) prevention of cruelty to children and young persons; (3) the use of tobacco; (4) reformatory and industrial schools; (5) juvenile offenders; (6) miscellaneous matters such as definitions, safety at entertainments, penalties for giving intoxicating liquor to children, etc. The Children's Act of 1908 at the time of its passage was popularly called the Children's Charter, although not so comprehensive as the term would lead one to suppose. It immediately attracted the attention of social workers in the United States, who pointed out the more or less chaotic condition of our own child welfare laws and suggested that action be taken by the several states, looking toward the simplifying, standardizing, and coordinating of their provisions somewhat after the manner of the British plan.

Ohio was the first to respond. In 1911 her legislature directed the gov-

ernor to appoint "a commission to revise, consolidate and suggest amendments to the statute laws of the state of Ohio which pertain to children," and defined the powers and duties of this commission in part as follows:

In performing this duty such commissioners shall unify the present laws pertaining to illegitimate, defective, neglected, dependent and delinquent children, and to their treatment, care, maintenance, custody, control, protection and reformation; and shall suggest such amendments and additions as to them may seem best calculated to bring the law of this State into harmony with the best thought on this subject.

The commission labored at its task for nearly two years and submitted to the governor, and through him to the legislature, in 1913, a thoroughgoing report with recommendations for laws on state control of charities, juvenile courts, institutions, placing-out, compulsory education, child labor, apprenticeship, offenses against children, and mothers' pensions. These recommendations were introduced into the legislature in the form of a single bill and, with some changes, were adopted that year.

New Hampshire's legislature next took action by authorizing the governor and council in 1913 to appoint "three suitable persons who shall investigate all matters relating to the welfare of the dependent, defective and delinquent children of the State, especially the questions of orphanage, juvenile courts, detention homes, desertion, physical and mental degeneracy, infant mortality, accidents and diseases, and make report, with recommendations concerning the above matters, to the legislature of 1915." The commission was appointed and a careful report duly prepared and submitted but its recommendations failed of adoption.

Upon the suggestion of social workers and without authorization by the

legislature, the governor of Missouri created a commission and charged it with preparing for consideration such changes in the laws concerning children as seemed advisable. Accordingly, forty-two bills were drawn, covering fairly all phases of child welfare, but only ten were enacted; here, too, the measures were introduced as separate bills instead of in a body as was done in Ohio. The expenses incurred by the commission in the discharge of its duties were met by contributions from private sources, for of course no public funds had been made available through appropriation by the legislature as had been the case in Ohio and New Hampshire. The proposals having been in large part rejected by the legislature in 1917, the governor ordered the commission to continue its work and a new and more detailed report was prepared by its thirty members and submitted in 1919, together with bills to revise inconsistent or conflicting statutes, to repeal obsolete or undesirable provisions, and to provide in some instances entirely new legislation. At this session the report fared better and most of the recommendations were adopted.

In 1916, also upon the request of welfare workers and without warrant of the legislature, attempts to obtain its authorization having failed, the governor of Minnesota, inspired by the example of Missouri's chief executive, appointed twelve persons "to revise and codify the laws of the State relating to children." The commission had only five months in which to work before the convening of the legislature and therefore did not try to cover the entire body of laws pertaining to children but gave its attention chiefly to the interests of the handicapped. In this case, also, expenses were provided for through the generosity of public-spirited citizens and societies. The report when submitted was referred to a

joint committee of the two houses of the legislature and the secretary of the commission was appointed to serve as its clerk. Thirty-six of the forty-three bills that had been prepared were favorably reported to the legislature by its joint committee and were passed with but slight alterations and with scarcely a dissenting voice.

PRINCIPLES OF THE CHILDREN'S CODE

These states were the pioneers in the children's code movement in this country, and many others are following their lead and reorganizing their child welfare work. But the term "child welfare" has become more or less technical and among social workers nowadays it is applied to the care of the child handicapped by poverty, neglect, delinquency, or defect. In defining the powers and duties of children's code commissions, governors and legislatures have apparently had this common limitation in mind and the commissions have generally restricted their work accordingly. However, a children's code should be as comprehensive as its name; it should not be devoted to the interests of any one class alone; the normal child, the ordinary, everyday, wholesome boy or girl, should be its beneficiary as well as the abnormal or subnormal child who is in need of special care. The real children's code is democratic and recognizes no class distinctions. It should include measures for the preservation of life and health, for education, for recreation and for the rights of parent and child, as well as for protection from want, abuse and crime. Health, education, recreation, and employment concern all children and, moreover, most boys and girls are not dependent, destitute, neglected, abused, delinquent or defective, but are normal in respect to their home life, their behavior, their condition of body and mind, and their

relations to society. The four essentials to wholesome development, health, play, schooling and suitable work, since they are necessary to all classes of children, the fortunate as well as the unfortunate, should have their place in every children's code.

The title of this article implies that children's codes grow and the implication is true; indeed, it is this characteristic of growth that holds out the promise of social well-being. The task of adjusting laws to conditions is continuous because conditions are always changing. A children's code must be from time to time renewed for each rewriting of it is but a step in the evolution of child care, a clearing of the way for further progress. It should be thought of as a living thing, capable of endless development. A fixed and final code would be a disaster but, happily, it is an impossibility for in the natural course of events it must yield to change. Conditions and ideals are the stuff of which it is made up and conditions and ideals are not stable things. Thus, while a children's code seeks to equalize opportunities for children by making toward uniformity of conditions, it must itself submit to being moulded and remoulded as time goes on, and must always encourage experimental work by whatever agency may be willing to undertake it, for it is only by means of fresh enterprises and trial of new methods that our systems of

law and administrative effort can be kept adequate under the ever changing circumstances of our life.

A children's code is more than a code. A code is an orderly compilation of laws, a mere labor-saving device, while a children's code is constructive social service. A code is a collection of the laws as they are; a children's code is a changing of the laws to what they ought to be. A children's code does not even bring together into one body the various laws of a state relating to children but leaves them scattered among the general acts as determined by their content; it does not aim at mechanical perfection but at the nurture of boys and girls. The word "code" in this connection is really a misnomer and "charter," signifying as it does the bestowal of rights and privileges, would, perhaps, be better; but "code" is shorter and hence preferred.

So it is that this movement, by whatever name it may be called, tries to make childhood safe, to give opportunity to those who otherwise would not enjoy it and to provide training and play for all. If it lengthens childhood for all children it will have accomplished its purpose; for childhood, as we like to think of it, means happiness and if this be prolonged by any act of ours we shall leave to our children and to our children's children, an inheritance that naught else earthly can surpass.

A State Program for Child Welfare

By WILLIAM HODSON, LL.B.

Director, Children's Bureau, State Board of Control, Minnesota

IN 1915 Mr. C. C. Carstens, Chairman of the Children's Committee of the National Conference of Social Work (or Charities and Correction as it was then called), presented a report

to the Conference on "A Community Plan in Children's Work." This report attempted to set forth in a concrete manner, not only the community responsibility for certain

classes of its handicapped children but a plan by which that responsibility might be effectively discharged—a plan sufficiently elastic to allow for modifications according to individual needs but definite enough in fundamental principles to serve as a guide for general use. Many groups in different states, interested in child welfare, have used the Committee's findings as a basis for study and in one state, Minnesota, they have been adopted, in part, in the children's program which was launched there in 1917, following the enactment of a considerable body of legislation to effect that purpose.

In the field of private philanthropy, legislation is not a prerequisite to effective social work. Law, in the main, is only incidental and, in truth, it is frequently the absence of good law which creates or perpetuates the need for private effort. To illustrate this point, one need only call to mind the burden imposed upon charity organization societies in the support of widowed mothers of dependent children before the passage of the so-called (and badly called) "mothers' pension" laws, or a similar burden in behalf of the dependent families of disabled workmen before compensation acts put the responsibility upon the shoulders of those ethically obligated to bear it. When we consider a state program, legislation is usually the starting point and for obvious reasons. The duty of the state to protect the interests of its children who are in need of guardianship care is, to be sure, well recognized in law, as well as in ethics, but in the absence of specific legislation it remains an undefined duty which is not susceptible of practical application until it is set out by metes and bounds. It is one thing to say that the state should extend its protecting arm to the dependent child and quite another to insist that no such child shall be placed

permanently in a family home until the state is assured that the home is such as will afford proper care. The general principle needs detailed amplification before it becomes a practical reality and it needs detailed limitation if it is to run the gauntlet of constitutional inquiry before courts of law. Moreover, the discharge of a public obligation requires administrative machinery which must either be created anew or moulded out of existing agencies; in either case, legislation is usually a necessity.

CREATION OF MINNESOTA STATE BOARD

It was such considerations which moved a group of interested people in Minnesota to ask the Governor for the appointment of a Child Welfare Commission to study conditions and make recommendations to the legislature which convened in 1917. It is hardly in point here to discuss the methods employed by the Commission in reaching its results further than to say that careful attention was given to the legal, as well as the social aspects of the problem; nor were proper publicity and the practice of practical politics in securing passage of the proposals overlooked. The Commission submitted forty-three measures, which had the approval of the governor, and the legislature enacted thirty-six into law. Two of the original suggestions which failed of passage have since become law and the others were not vitally essential to the general scheme presented.

Mr. Carstens' report deals with neglected, dependent and delinquent children and those who are physically and mentally defective. It suggests the state as a proper administrative unit in dealing with the problem and the county as a useful local adminis-

trative agency. Minnesota has centered its administration in the State Board of Control, a board of five members, two of whom are women, and all of whom are appointed by the governor for terms of six years. This board was given supervision and control over seventeen state institutions, including those relating to dependent, delinquent and defective minors and was the natural body to assume the additional powers necessary to an enlarged program for the care of children outside of institutions. It was authorized to create a department, under its control, to accomplish this purpose and in pursuance of that authority established what is known as the Children's Bureau. Here centralized responsibility is supplemented by de-centralized administration through county child welfare boards whose personnel consists of three (five in the case of the larger counties) persons appointed by the State Board, two of whom are women and two ex-officio members—the county superintendent of schools and a member of the board of county commissioners, selected by that board. In this way the close inter-relationship of the school system to the general problem is recognized and the coöperation of the commissioners, who are called upon to appropriate the funds for the county welfare boards, is secured. It is worth noting here that the local body is not appointed until a petition has come from the commissioners requesting such appointment, on the principle that these boards cannot function effectively until public opinion in the community is convinced of their need and ready to ask for their establishment. Communities, however, have been active in demanding them. Since January 1, 1918, when the law became operative, sixty-eight boards have been appointed in the eighty-six counties of the state.

NEED FOR CENTRALIZED ADMINISTRATION

The need for centralizing child welfare administration in a central body with county agencies operating in the various parts of the state, is summed up in the report of the Child Welfare Commission, which drew the law in the following manner:

At present the function of ultimate guardianship is exercised by the state, with respect to handicapped children, only through the courts and the public institutions to which the court makes commitments. Except as to the limited work done by the bureau of women and children of the State Department of Labor, it is literally true that no state agency in Minnesota is charged with the duty of seeing that children who need the help of the state by reason of their peculiar social handicaps have that help afforded them, either through court action or otherwise. The initiative is left with private persons and organizations. Present laws lay upon the Board of Control general duties in the matter of inspecting certain child helping organizations and institutions conducted by them; but these laws are far too vague to be thoroughly effective, and as to children not in institutions, public or private, the board has no duties whatsoever.

It has seemed to the Commission, therefore, that the prime requisite of its scheme is to centralize the state's authority and duty, so far as practicable, in an official group—(the State Board of Control). This machinery operates in every part of the state through the county child welfare boards.

The coördination of local agencies with a central one is expected to be an educative force of great value in developing right ideals and methods of work for children throughout the state, besides affording opportunity and responsibility for initiative now nowhere found.

As to whether the purposes of the Commission have been fully carried out, it is yet too early to pass a sound

judgment. This much is certain, however, that the constant and direct contact between the state office and the local groups has made possible, mutuality of understanding, unanimity of purpose and standardization of method to a degree which hardly seems possible under any plan which does not provide for similar inter-relationship of structure. The process is aided in no small measure by the annual conferences held by the state and local groups in connection with the State Conference of Social Work. These conferences are held by authority of law and the county is authorized to pay the expenses of certain local officials, including the county juvenile court judge and a member of the child welfare board. The county is likewise authorized to pay the necessary traveling expenses incurred by members of child welfare boards in attendance at meetings and when investigating cases. The salary and expenses of executive agents of the boards may also be paid by the county and all items of expenditure are subject to the approval of the board of county commissioners.

Mr. Carstens' report for the Committee on Children asserts that public departments should devote themselves to such work "as is based on principles that are well established, require the more permanent care, are more general in their application or contain an element of compulsion or control; while private organizations should develop in directions that are more experimental, require more temporary care, are more unusual in their application or are carried on with the coöperation of the families benefited." The report further expresses the judgment that children's work not carried on directly by the state should nevertheless be subject to state regulation and supervision. In other words, it is the obligation of the state to undertake,

itself, protective work in those fields where a public board can operate with the greatest propriety and effectiveness, and to assure itself that a minimum standard of efficiency is maintained by private organizations in the lines of work which they can more properly perform. It is impossible, and perhaps illogical, to consider the powers and duties of the local child welfare boards without first discussing the powers and duties of the State Board of Control and its instrument, the Children's Bureau, with reference to the principles just stated, because the local groups with few exceptions derive all their authority from the State Board. In the language of the law: "The Child Welfare Board shall perform such duties as may be required of it by the Board of Control in furtherance of the purposes of this act."

POWERS AND DUTIES OF THE STATE BOARD

The powers and duties of the State Board are of a three-fold character: First, there are imposed duties of a general protective nature, such as the enforcement of laws which are designed to protect children from their own anti-social conduct or the harmful acts of adults, and the taking of the initiative to conserve the interests of children in all matters where adequate provision has not already been made.

Second, authority is conferred upon the Board to accept the guardianship of handicapped children of all types who are committed by juvenile courts and to make such disposition of the children of either a permanent or temporary character, as the facts of the cases may warrant. This authority has been modified somewhat by a recent decision of the Supreme Court which holds that after a commitment to guardianship and before legal adoption by third persons, the juvenile

court has jurisdiction, upon a proper showing, to remand children so committed to the custody of their parents from whom they were originally taken. It is easy to imagine cases where the exercise of this power may work severe hardship upon innocent persons, as where a child has been placed out by the Board after commitment and has remained in the foster home for several years without having been legally adopted. In fact, the instance which was the occasion for the decision was a case where a profligate and immoral mother regained the right to the custody of the child who pled piteously not to be returned to her parent and who was desirous of remaining with her adopted parents in the excellent home which they provided. Fortunately a way has been found to thwart, temporarily at least, this unfortunate result.

Third, there are imposed upon the Board of Control, specific duties with respect to particular classes of children and institutions for their care. The law expressly enjoins the Board to coöperate with juvenile courts and all reputable child-caring agencies, and also requires it to license and supervise private societies, agencies, and institutions which receive children for board and care or which place them in family homes. Maternity hospitals, *i.e.*, all hospitals, of whatever character, which receive more than one woman within a period of six months for confinement care, are subject to the same licensing and supervisory power. Here is recognition of the right of the state to assurance that the care which children are receiving at the hands of private institutions and organizations is of such a nature as to provide a fair opportunity for growth and development. In the exercise of this right it has been necessary to prevent many who sought to undertake such work

(usually those who were looking for a business opening) from so doing.

In the great majority of cases the problem has been one of mutual counsel between the state and the private groups in the attainment of higher standards and a minimum of uniformity in principles and technique. Those agencies which place children in free homes for permanent care or adoption are required to report their placements to the Board, which investigates and may order the return of the child, if in its opinion the home is not suitable. The procedure here involves a duplication of investigations which is cumbersome and should be avoided, if possible, by an agreement to accept as final the reports of such agencies as attain a reasonable standard of proficiency in child placement. Singularly enough, this type of work in the western states has been and still is, to a large extent, in the hands of persons who are not markedly qualified for it; yet good placement is fundamental in child welfare work. Nowhere is there greater need for general agreement between the public and private agency as to principle and method than in this field where individual judgment so easily leads to differing opinions and diametrically opposed conclusions.

RELATED PROBLEMS CONFRONTING THE BOARD

Correlated to the subject of placing children is their legal adoption. It has been the prevailing custom to regard adoption as strictly a legal process based upon the sufficiency of the papers and affidavits presented to the court having jurisdiction. However, the Board of Control now receives copies of the petitions filed in such cases and is required to investigate and report to the court as to the suitability of the child and the foster home, each to the other. The social factors have been given a place

of prime importance in a proceeding which is essentially social in all of its implications. As further evidence of this, adoptions cannot be legally perfected until the child has remained for six months in the foster home.

The adoption and placement of children naturally relates itself to the age-long and baffling problem of illegitimacy, for the child born out of wedlock frequently is in need of a foster home. The Board of Control functions here by assisting in the establishment of the paternity of the child and by conserving the interests of the mother and child in whatever ways may be found necessary. The responsibility of illegitimate paternity is made the same as that of legitimate so far as care, maintenance and education are concerned, and the Board is authorized to make settlements with the approval of the court, to hold money in trust for the benefit of the child and to pay out from time to time such sums as may be needed for the child's care. The two-fold advantage of such a plan lies in the fact that where settlements are made in lump sum, the principal can be conserved during the full period of the child's minority and, in any event, money need only be paid out after a showing on the part of the mother or other custodian that good care and wholesome environment are being provided, *i.e.*, that the money is being well spent. Moreover, the activity of a public body in securing adequate settlements, either in lumpsum or monthly payments, for children born out of wedlock, tends to raise the amounts and, consequently, the standard of maintenance.

Minnesota has made provision for county allowances (mothers' pensions) for several years and the relief has been administered by the various county probate judges with such assistance in the way of social investigation as the

individual judge might desire. In practice, very little investigating of such matters has been done save in the counties containing large cities and the law has been administered in a loose, unstandardized fashion. The statute of 1917 makes it the duty of the State Board of Control to promote uniformity and efficiency in the giving of this relief by coöperating with and lending assistance to probate courts, and provides for a state refund of one-third of the amount expended by the counties, which is to be paid upon the approval of the Board. No appropriation has ever been made for this purpose but, in spite of that fact, there has been a developing inter-relationship between the courts and the state and local boards which has served to bring about some improvements and the situation gives promise of better things for the future.

In the general state program the needs of the mentally defective have not been ignored. A feeble-minded person is subject to compulsory commitment to state guardianship when his own interests or those of the public require it, and the Board of Control becomes responsible for the supervision or custodial care of the patient. It may make such provision as may be needed within the limits of its facilities which, in common with those of all other states, are somewhat meager, though some relief will be afforded when the new colonies on state land are put into operation as a supplement to the present institution for defectives.

FUNCTIONS OF COUNTY BOARDS

Such then, in general outline, are the duties of the state agency from which the county child welfare boards derive their authority in the process of decentralized administration. The local group investigates and reports upon all adoptions and placements within its

jurisdiction. It undertakes to do the case work involved in the treatment of the unmarried mother and her child, under general supervision from the state office. It assists the mother in bringing affiliation proceedings and represents the Board of Control in those proceedings and in the settlement negotiations. It provides supervision counsel and guidance for mother and child and plans for the future of both, whether they remain together or are separated. Where a feeble-minded person is committed to state guardianship the local board usually determines when the proceeding shall be brought and, if non-institutional care is to be provided in the community, the local group are responsible for the patient's supervision. The county board coöperates closely with the court, which administers county allowances, in investigating applications and in supervising families to which such aid is being given. The members of the board or its agents may and do serve as probation officers in the juvenile court and as school attendance officers.

But the county boards are more than mere instruments of the state department; they are the official representatives of their constituents in the community in fulfilling the county's responsibility toward childhood, and a central clearing house to which may be brought all matters involving the well-being of children. The local group is close to its own problems and readily accessible in their solution. It has knowledge of the special needs and peculiarities of its own community and can adapt its action accordingly while the immediate contact with local public officials makes coöperation more prompt and effective. However, it must be admitted that sometimes the very immediacy of the contact proves a barrier to good results. Most important of all, the child welfare board is,

in a sense, the keeper of the community conscience in doing justice to childhood. A general program based upon defined principles needs to be understood by the community before it becomes an actuality. The local board is an educative force and a center for the dissemination of right standards and ways of thinking in its own vicinity, thus rendering an indispensable service in a state-wide scheme of child protection.

ESSENTIAL PRINCIPLES

Enough has been said to show the extent of the job which confronts a child welfare board and the technical character of much of its work in dealing with case problems. In the last analysis, good case work is fundamental and the members of these boards may well be regarded as case workers in training with the state office, strained usually beyond its powers in providing wise direction and supervision. The actual contact with real human problems is of incalculable value to a board member in a realization of the importance of his duty and the manner in which that duty can be most effectively discharged. Nevertheless in the last analysis there should be trained service at the disposal of such boards. A fully equipped executive secretary can give direction, power and professional method to the board's work, while making the board itself determine policy, think socially and shape community environment and ideals. Some twenty of the boards now have secured executive secretaries of more or less training, with, on the whole, the expected good results.

The program as outlined conforms, in the main, to the opinions expressed in the report of Mr. Carstens' committee. Most of the work undertaken is based upon principles that are well established or of general application.

This is particularly true of adoption and placement investigations; it is less true where the feeble-minded and the illegitimate are concerned, yet even there the element of compulsion is frequently present. In the development of case work with the unmarried mother and her child, the private agency has an opportunity which is unlimited for achieving sound and successful results. Generally speaking, but little has been done in this field where sentimentality, prejudice and untrained service have played so important a part.

Whatever may be the general soundness of any state program, it must stimulate and encourage private initiative as a necessary and fundamental supplement to its own endeavor. Private enterprise should be pioneering effort, exploring new fields, recognizing new needs and developing higher standards. Too frequently, however, such societies and organizations have been content with their present job,—the thing they have always done—and have been unwilling to venture from the safe and established moorings. This not only reacts upon the value of their own work but it deprives the state group of that stimulus and example which is a partial remedy for bureaucracy and unimaginative routine. More important still, it leaves a valuable field of service untouched where proper cultivation would satisfy real social and human needs.

INSTITUTIONAL DEVELOPMENT

A state program is not complete which does not provide institutional care for those children in need of it. In Minnesota, as in most states, the building of institutions has preceded by many years the development of non-institutional preventive work. For the crippled and deformed child who can be benefited by operation or treatment,

there is the hospital, equipped to provide that service for children whose parents are unable to pay for private care. The blind are given special training in a school which seeks to fit them for useful citizenship, and another school provides similar training for the deaf and the defective of speech. Custody and training for the feeble-minded is the work of another institution, while simple colony care for the able bodied males is in contemplation. The delinquent girl is trained in the useful arts and is taught respect for authority and an appreciation of the fundamentals of group life in what is well called the Home Schools for Girls—an institution unique in its effort to avoid the harmful effects of institutional isolation by relating its work to the community in which it is located and by affording life in the community to the fullest possible extent. The Training School for Boys provides for the needs of the delinquent boy upon the well recognized principle that delinquency is to be treated by diagnosis and remedy; not by conviction and punishment. The dependent child is cared for and ultimately placed-out for permanent care, if there is no hope of rehabilitating his home, by the State School which receives him upon commitment from the juvenile courts of the state.

If one were to venture a prophecy, it is that the future development of institutions is to be in the direction of greater simplicity in organization and buildings—a readjustment of administration and physical plant in ways which will permit of individual and not mass care and provide a life, while in the institution, which approximates more closely the surroundings and environment which the child meets in actual life. He is normally accustomed to a plain dwelling home, two parents and brothers and sisters; his

difficulty is usually absence of parental care or defective parental guardianship. He does not need a marble tiled building covering a city block with from fifty to a hundred (many times, more) children to share his daily life. May it not be also that there will be in the future less of specialization in children's institutions and more provision for the care and study of the problem child who seldom can be pocketed merely as a delinquent, a dependent or a defective.

The State Board of Control is not the only state agency which protects the well-being of children, for the State Industrial Commission is charged with the enforcement of comprehensive child labor, street trades and school attendance laws, which are designed to insure a heritage of education and to prevent industry from "reaping the human crops in the spring time." The State Board of Education, in addition to its duties in the administration of state aid to local school districts, undertakes to assist and provide aid to such local school districts as provide special classes for retarded children and those suffering from other handicaps which leave them unfit for the regular school curriculum.

The State Board of Health collects

and compiles vital statistics and through its divisions, Nursing, Tuberculosis, Venereal and Preventable Diseases, relates itself definitely to the child conservation program. For all these state agencies there is pressing need of correlation and coördination. Possibly the Ohio plan for a state council would afford a solution of this difficulty.

Besides the administrative agencies of the state herein referred to, there is state wide provision for county juvenile courts which hear the problems of the delinquent, dependent and neglected child and which administer the county allowance (so-called mothers' pension law). It has been the aim in Minnesota to establish close contact between the juvenile courts and the state and county child welfare agencies in order that the judicial phases of the problem may have adequate administrative supplement.

The investigation of county allowances and the follow-up supervision where such allowances are granted, the investigation of neglect and delinquency and the provision for probation, are all matters of an administrative character for which the child welfare boards are gradually assuming a larger measure of responsibility.

FOREWORD

SELDOM does the American Academy publish doctors' dissertations. This dissertation by Miss Sadie T. Mossell, however, is so replete with interesting information as to the life of migrant Negro families in Philadelphia and the thesis is so suggestive, not only as to methods but as to conclusions, that we are glad indeed to have the opportunity to publish it.

It was not without significance that Miss Mossell is one of three colored women who were first to receive the degree of doctor of philosophy in this country, and these three degrees were all conferred in June of this year (1921).

The Academy sends out this monograph with the hope that it may stimulate other students, particularly of the colored race, to devote their scientific attainments to a study of living and industrial conditions among the Negroes in this country.

CLYDE L. KING,
Editor.

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PREFACE

THE exodus of the Negro from the southern to the northern states during 1916, 1917, and 1918 called forth numerous dissertations on the causes and effects of the movement. Some of these dealt with the entire migration, while others limited themselves to a particular aspect of the influx to a given territory. The latter method has been adopted in the following discussion, which is an attempt to arrive at conclusions concerning the migrants to Philadelphia, through an intensive analysis of the budgets of a small number of their group. The statements leading to these conclusions would perhaps be more forceful if supported by charts and diagrams. But, for publication purposes it was found necessary that these be omitted.

For whatever value the study has, the author is particularly indebted to Dr. Raymond T. Bye of the Wharton School, University of Pennsylvania, who gave untiring and sympathetic guidance, and to her mother, who checked the statistical work, read the manuscript and rendered in other ways inestimable aid.

SADIE TANNER MOSSELL.

The Standard of Living Among One Hundred Negro Migrant Families in Philadelphia

By SADIE TANNER MOSSELL, PH.D.

CHAPTER I

INTRODUCTION

The Negro Migration of 1916, 1917, 1918.

A Detailed Statement of the Migration to Philadelphia During This Period.

IT is estimated that four hundred thousand Negroes suddenly moved North during the years 1916, 1917, 1918.¹ The movement embraced Negroes of all classes² and from every state south of Delaware, east of, but including Texas.³ The causes for their coming were two-fold: on the one hand, certain conditions in the South impelled them to leave; on the other, fortuitous circumstances made it desirable to invite them to come north.⁴

The most important of the impelling circumstances we have classified as follows:

Economic	{	low wages
		failure of crops due to the boll-weevil, resulting in unemployment
		dissatisfaction with the tenant and crop sharing system.

Social	{	poor schools
		segregation
		monotonous farm life
		lynching
Political	{	disfranchisement
		mistreatment and persecution by representatives of the law.

Generally dissatisfied, therefore, with the régime of the South, the Negro was ready to abandon it for the first opening elsewhere. Foreign immigrants had always been influential in keeping him out of the northern labor market. But the Great War cut off European labor at a time when war orders were most pressing and labor most needed. The industries of the North were forced to turn to the Negro as their only immediately available supply of labor. As an inducement to come north, they offered him the antithesis of many of the conditions which made the Negro desirous of leaving the South, viz.:

High wages
Little or no unemployment
Educational facilities, the best in the land
The lure of the city
The ballot
Greater justice in the courts.

Of the four hundred thousand Negroes who took advantage of the oppor-

¹ Emmett J. Scott, *Negro Migration During the War*. Carnegie Endowment for International Peace. 1920, p. 5.

² Negro Migration in 1916-1917, U. S. Department of Labor, Division of Negro Economics, 1919, p. 11.

³ Carter G. Woodson, *A Century of Negro Migration*, Washington, 1918.

⁴ W. O. Scroggs, Interstate Migration of The Negro Population, *Journal of Political Economy*, 1917, p. 1034; How the War Brings Unprecedented Opportunities to the Negro Race, *Current Opinion*, Dec., 1916, p. 404-405; Lure of the North for Negroes, *Survey*, April 7, June 2, 1917; *The Crisis*, Oct., 1916, p. 270. June, 1917, p. 63.

tunity to move north, at least forty thousand⁵ came to Philadelphia. Since the present investigation deals entirely with the migrant who came to that city it seems advisable that as a background for the study we should inquire more in detail into the exodus to Philadelphia.

The migration to Philadelphia began in the spring of 1916⁶ and was maintained at a normal rate of 150 per week from that time on to the spring of 1918 when the city was confronted with the largest influx of Negroes in its history. Eight to ten thousand arrived during the months of April, May and June alone. After this time, however, the migration dropped back to its normal rate.⁷ But with the signing of the Armistice in November of 1918, war orders and the accompanying need for an increased labor supply ended. The demand for a further exodus of Negroes no longer existing, migration to Philadelphia, in the proportions previously described, ceased.

In an exodus based so largely on economic and social motives one is not surprised to find that many migrants sought of their own accord to settle in Philadelphia, an industrial center, a city of "brotherly love," reputed to have a favorable attitude

toward colored people. We find, nevertheless, that regardless of the attractions of the city *per se*, there were definite influences at work to induce Negroes to come to Philadelphia. The chief of these were the railroads of Pennsylvania and the industries of Philadelphia.

The Pennsylvania and Erie Railroads found it impossible to keep their systems in repair because of a shortage of labor. They, therefore, sent labor agents into the South to persuade Negroes to supply this demand. Early in the summer of 1916 the agents of these railroads picked up trainloads of Negroes promiscuously from Jacksonville, St. Augustine and Pensacola, Florida. They brought twelve thousand of them into Pennsylvania, one thousand of whom were sent to Philadelphia.⁸

The industrial plants situated in and adjacent to Philadelphia were also influential in attracting Negroes to the city. As early as August, 1916, The National Hosiery and Underwear Manufacturers of Philadelphia proposed bringing colored girls from the South to work in knitting mills. In preparation for this work, girls were at that time being trained at Endfield, North Carolina, to take permanent positions in the northern mills.¹⁰

Similar propositions were made by other manufacturers. The sending of labor agents into the South was, however, for the most part rendered unnecessary for the manufacturers of Philadelphia, because the majority of the migrants who had their transportation paid by the railroads left their employ on finding wages higher in other industries.¹¹ The extent of the

⁵ The approximation that 40,000 Negroes came to Philadelphia during the period of migration above described is derived from an estimate made by the Division of Negro Economics and based on the number of Negroes employed in Philadelphia in 1917 in excess of the number employed in 1915, which number is given as 33,500.⁸ To this we added the conservative estimate of 10,000 for 1918. The sum of these two numbers assures us of a minimum influx of 40,000. The reader is cautioned against considering that Philadelphia's colored population was permanently increased to this extent; since with the closing down of war industries there was a readjustment of population.

⁶ Scott, *Negro Migration During the War*, p. 55.

⁷ Philadelphia *Public Ledger*, July 28, 1918.

⁸ Negro Migration in 1916-1917, Appendix.

⁹ Scott, *Negro Migration During the War*, pp. 55, 135.

¹⁰ Philadelphia *North American*, August 2, 1918.

¹¹ Scott, *Negro Migration During the War*, p. 135.

demand for Negro labor by the industries of Philadelphia may, however, be judged from the following press comment:

Four hours after the Federal Labor Exchange had opened yesterday it was apparent that if requisitions for Negro labor filed by various manufacturers in the metropolitan zone were filled, Philadelphia and this section of Pennsylvania would have a fresh race problem. For in the 850 requisitions were demands for 257,164 men for August, September, and October in war industries in this state, and of that number were requisitions for 186,000 Negroes alone, to be used in unskilled labor.¹²

The demand for Negro labor having come entirely from the industries and for unskilled labor, we are not surprised to find the migrants almost wholly employed as unskilled laborers in the industrial plants of Philadelphia. In the column opposite is a statement of the plants in which they worked largely in this capacity and the number employed, during the year 1917.

The sudden increase, in such large proportions, in the Philadelphia Negro population, which, as we have just seen, was the result of unusual opportunities for work offered by the city and of the purposeful efforts of the industries to secure labor, created serious problems. The most pressing of these was the housing of the new comers. The Pennsylvania Railroad was the only industry which provided any kind of housing for the migrant. The camps in which it lodged him, however, proved to be of little assistance, since the camps themselves, consisting of ordinary tents and box cars, did not provide adequate shelter and since many of the men left the employ of the railroad, while others abandoned the camps as soon as they were able to bring their families north.¹³

¹² Philadelphia *Public Ledger*, August 2, 1918.

¹³ Scott, *Negro Migration During the War*, p. 135.

NEGRO LABORERS EMPLOYED IN INDUSTRIAL PLANTS OF PHILADELPHIA IN 1917

Pennsylvania Railroad Camps	
Girard.....	170
Mantau Junction.....	300
Frankford Junction.....	60
Eastern Pennsylvania Camp...	150
Baltimore and Ohio Camps.....	120
Reading Camps.....	300
<hr/>	
Total for Railroad Camps.....	1,100
<hr/>	
Midvale Steel Co.	4,000
Atlantic Refining Co.	1,000
Franklin Sugar Co.	700
Keystone Paving and Construction Co.	1,100
(Chester)	
Westinghouse-Church-Kerr.....	600
(Essington)	
Eddystone Munition Corporation...	600
Disston Saw Co.	400
<hr/>	
Total Estimated Number in Plants Visited.....	8,400
Estimated Number in Plants Not Visited.....	7,750
Estimated Number of Women and Children	16,250
<hr/>	
Total Estimate for Philadelphia .	33,500

Housing conditions in the city were deplorable. Press comments describe the Negroes as herded together like cattle and tell us of one room measuring 16 by 20 feet in which twenty men slept on the floor, as no beds were provided, and for which the proprietor charged \$1.50 a week.¹⁴ It was found necessary, therefore, immediately to ameliorate the housing condition and its accompanying social problems.

To that end, interested organizations and individuals in the city formed committees to assist in the work. The Philadelphia Housing Association sent out inspectors to inquire into the na-

¹⁴ Philadelphia *Public Ledger*, Jan. 26, 1917; Jan. 31, 1918.

ture of the housing situation and to find possibilities for improving it. They were also active in forming committees on Negro migration among other organizations. Through their efforts the Civic Club of Philadelphia joined in the work being carried on in the interest of Negro migration by the Central Committee of the Department of Health and Charities.¹⁵

A committee was appointed by Bishop Rhinelander, of the Protestant Episcopal Church, to take action in the promotion of better housing conditions for the Negro migrant. The committee consisted of social workers, church officials, and representatives of such industries as the Franklin Sugar Refining Company and the Pennsylvania Railroad.¹⁶ Representatives of the Armstrong Association, the Travelers' Aid, the Society for Organizing Charity, the Philadelphia Housing Association and various Negro churches formed a joint committee to provide suitable housing for Negro families arriving in the city and to aid them in securing work.¹⁷

The Philadelphia Academy of Medicine, composed of Negro physicians, dentists and druggists, put into effect measures calculated to meet requirements for housing, sanitation, medical attention and education. Eighty colored physicians of the city collected information which took the form of a weekly report to the Bureau of Health. Real estate dealers were asked to submit lists of houses immediately available and to provide hundreds of new ones, cheaply but substantially built. Stereopticon lectures and talks were given on a large scale in all the Negro churches, telling the new arrivals how to care for themselves in Philadelphia,

how to avoid colds, and giving them other useful information.¹⁸

The Interdenominational Ministerial Union embracing all Negro ministers of the city mapped out a detailed plan to assist the migrants. They tried not only to enroll them in the churches but to give them aid through the church. One of the most active churches in carrying out the program was Calvary M. E. Church, Broad and Bainbridge Streets, which enrolled 4,200 children in its Sunday School, gave out 50 buckets of soup daily during the winter of 1918, and coal to all who needed it. This same church formed a Committee of One Hundred to deal with the idle and indolent among the migrants.¹⁹ Many other churches while not administering physical comforts, nevertheless played their part by giving sound advice to the migrant. They urged him to send his children to school, to take advantage of the libraries and night schools, himself, to give the best service to his employer regardless of pay, and above all to remember that in him the race was on trial; for now he was given a chance to work at a living wage, to buy a home, save money and become an active part of Philadelphia's citizenry. The entire country was watching to see what advantage he would take of this opportunity.²⁰

It is difficult to measure just what each of the committees and associations which we have mentioned did accomplish, but for our purpose it is sufficient to point out that most of the social organizations of the city tried to aid the Negro migrant to become adjusted to his new environment. Their voluntary and cheerful efforts must

¹⁸ Scott, *Negro Migration During the War*, p. 137.

¹⁹ *Evening Bulletin*, July 30, 1917; *Public Ledger*, Jan. 31, 1918.

²⁰ Scott, *Negro Migration During the War*, p. 138.

¹⁵ *Public Ledger*, Jan. 26, 1917; Jan. 31, 1918; *Evening Bulletin*, March 26, 1917.

¹⁶ *Evening Bulletin*, Dec. 24, 1920.

¹⁷ *Public Ledger*, July 28, 1918.

not, however, be taken as an indication of the manner in which the Philadelphia public, white and colored, received the migrant. If we may judge the attitude of the whites by their efforts to segregate him, it would seem that he was highly unwelcome. The housing problem was itself a result of the determination on the part of the white people that the migrant should live only in that part of the city in which Negroes had previously lived. Vacant houses in other sections were not for rent or for sale to Negroes.²¹ The increase in Negro population greatly stimulated the movement, already on foot, to segregate Negro children in the schools. Also such social privileges as the service of eating houses and the attending of white churches and theatres by Negroes, were practically withdrawn after the influx of Negro migrants into Philadelphia.²²

Actual conflicts between the two races were not numerous; only one of any importance occurred during the period of the migration, and this was a result of the impending housing problem. A colored probation officer of the Municipal Court, a woman of refinement and training and an old citizen of Philadelphia, purchased and took up her residence at the house numbered 2936 Ellsworth Street. The white people in the neighborhood resented her living there and besieged the house. A race riot ensued in which two men were killed and sixty injured.²³

This incident explains the attitude of the Negro public of Philadelphia toward the coming of the migrant. As in the case of the probation officer so in numerous other occurrences, the colored people of every class received harsh treatment at the hands of the

white public. This was virtually unknown to the Philadelphia Negro, for the city had long possessed a relatively small population of Negroes of culture, education and some financial means. They had always enjoyed the same social and educational facilities as the whites and courteous treatment from them. But, with the increase in population by a group of generally uneducated and untrained persons, these privileges were withdrawn as has already been discussed. The old colored citizens of Philadelphia resented this, placed the blame at the migrant's door and stood aloof from him. Negro preachers invited the new arrivals into the church but many of the congregations made him know that he was not wanted. In some cases the church split over the matter, the migrants and their sympathizers withdrawing and forming a church for themselves.

The Negro migrants were not absolutely blameless in the attitude assumed toward them by the white and colored public. While crime and immorality among them never developed beyond control, many of their number were to be seen lounging on corners, frequenting dens of vice and saloons and arming themselves with razors and pistols, thereby increasing the number of court cases and greatly marring the records of the Negroes in Philadelphia and the peace of the city.²⁴ Although the numbers indulging in these practices may have composed only a small percentage of the total migrants, in such cases the action of the few condemned all.

This situation brings clearly before us the principal inquiries which the migration as a whole has raised in the minds of all who have studied it. Even from our brief discussion of the migration to Philadelphia the same questions occur to us: Was the mi-

²¹ *Public Ledger*, July 28, 1918. Jan. 26, 1918; Scott, *Negro Migration During the War*, p. 135.

²² Scott, *Negro Migration During the War*, p. 135.

²³ *Public Ledger*, July 29, 1918.

²⁴ *Evening Bulletin*, July 30, 1917.

grant to Philadelphia able to adapt himself to the environment of an industrial economy, and did his presence help or hinder the racial condition in that city? Believing that the standard of living maintained by a people is an index of the extent to which they have

adapted themselves to a given environment, we have undertaken to analyze the incomes and expenditures of a group of migrant families in order to ascertain the character of their standards of living and thereby to judge of the degree of adaptation obtained by them.

CHAPTER II

THE SCOPE, PURPOSE AND METHOD OF THE INVESTIGATION.....	178

The following study is based upon an examination of the budgets of one hundred Negro migrant families that came to Philadelphia, under the conditions just described, during the years 1917 and 1918, chiefly from the agricultural districts of Mississippi, Alabama, Florida, Georgia and South Carolina.

The purpose of the investigation is: (1) to analyze the budgets of a group of Negro migrant families in Philadelphia; (2) from an analysis of the budgets and from a knowledge of physical requirements for the maintenance of the body in health and a fair degree of comfort, to determine what in our judgment constitutes a fair standard of living for the Negro migrant in Philadelphia; how many of the families investigated were able so to adapt themselves to the environment of Philadelphia as to be able to obtain not only an income sufficient to provide such a standard of living, but also so to spend it as to procure a fair standard of living; (3) as far as is possible from the scope of our study, to ascertain what effect these Negro migrants had upon the racial condition in that city; and what suggestions a study of the incomes and expenditures of one hundred migrant families can offer for improving that condition.

1. SELECTION OF FAMILIES

The one hundred families considered in this investigation lived in that part of the twenty-ninth ward which is

bounded on the north and east by Ridge Avenue, on the south by Master Street, and on the west by Twenty-third Street, covering an area of six and one-half city blocks. This location was chosen because its Negro population was practically limited to migrants from the South since 1916. Previous to this date, the neighborhood was inhabited almost entirely by white people, while in 1919 one could scarcely find a white family. The investigator was certain, therefore, to find a fruitful field for her study.

2. OBTAINING THE RESULTS

The investigating was done by the writer who personally visited each of the families upon whose budgets this dissertation is based, during the period extending from October 2, 1919 to December 31, 1919 inclusive. The inquiries made of each family were:

- Address
Date of visits
1. Where did you live before coming to Philadelphia?
2. When did you come to Philadelphia?
3. How many persons are in your family and what are their ages?
4. Who is head of your family?
5. Relationship of rest of family to head?
6. Who in family works?
7. Age of each who works?
8. Where does each work?
9. What does each do?
10. How many weeks has each lost from work since last November?

11. Cause of lost time?
12. Wage of each who works?
13. Number of rooms in home? Type of house? Condition? Conveniences?
14. Number of rooms sub-let?
15. Amount received from each? Weekly? Monthly? Yearly?
16. Number boarders?
17. Amount each pays?
18. How much do you spend for rent?
Note increases or decreases in past year.
19. How much for light?
How much for heat?
20. How much for food?
21. How much for clothing?
22. How much for insurance? Ordinary? Health? Industrial? Lodges?
23. How much for church?
24. How much for furniture?
25. How much for doctor? How much for dentist?
26. How much for carfare?
27. How much for tobacco?
28. How much for alcohol?
29. How much for amusement? What kind of amusement?
30. Other expenditures?
31. How much do you save? What debts have you?

Expenditures on clothing were secured by the investigator's asking the housewife which of the garments listed on page 180 had been bought during the past year and for what price.²⁵

Information gathered by personal observation and by questioning the housewife was supplemented by the records of credit purchases of food, fuel and light products as listed in grocery account books for periods varying in length from three to six months.²⁶

3. HANDLING OF RESULTS

The material thus obtained was classified on a yearly basis.²⁷ The in-

comes and expenditures of families were grouped in tables according to both the size of the family and, in separate tables, the size of the income. For the latter purpose, starting with the lowest income of any family in the study, *i.e.* \$766.50, sixteen income groups were set up until the maximum income of a single family, \$5,581.60, was reached. In order to compare the incomes of families of various sizes and with different incomes, the arithmetical average²⁸ was adopted, since it gives equal weight to both extremes and also eliminates individual departures from the type. The average was obtained for the incomes and expenditures of families, both in dollars and percentages of the total income.

Use was also made of frequency tables in which items of the same class were grouped and the number of cases falling in each class enumerated; *e.g.*, the number of families saving less than \$100 and the number saving over \$900.

ACCURACY OF RESULTS

We do not claim for the study the exactness of a mathematical problem. But we feel that it is as accurate as it is possible to obtain budgetary statistics gathered by a house to house canvass. Wherever possible, every reported expenditure was checked in some manner. Bank deposits, Liberty Bonds and other savings were not recorded unless evidences of their possession could be produced. Wages were verified by viewing the pay envelopes; insurance, by inspecting the policies; food, coal, clothing purchases,

²⁵ See discussion of Clothing on page 192.

²⁶ See discussion of Food on page 185 and of Light and Fuel on page 197.

²⁷ For example, if the food purchases of a family were secured for six months, they were doubled to obtain the yearly expenditure.

²⁸ Attention is called to the fact that the significance of percentages diminishes as the number of cases decreases. For that reason families of a large size or families falling in the higher income groups, both of which are few in number, seem to deviate from the tendencies manifested by the majority of the families.

EXPENDITURES ON CLOTHING
LIST OF GARMENTS WORN BY MEN

Article	Cost	Remarks	Article	Cost	Remarks
Suits			Shoes		
Extra Pants			Shoes Repaired		
Overcoats			Rubbers		
Overalls			Night Shirts		
Shirts for			for Summer		
Work			for Winter		
Dress			Underwear		
Collars			for Summer		
Ties			for Winter		
Suspenders			Gloves		
Belts			Garters		
Socks or			Sundries		
Stockings					
Hats					

LIST OF GARMENTS WORN BY WOMEN

Article	Cost	Remarks	Article	Cost	Remarks
Hats			Shoes, new, repaired . . .		
Coats			Rubbers		
Suits			Stockings		
Dresses, wash, woolen . . .			Garters		
Waists			Corsets		
Petticoats			Gloves		
Underwear			Dress Goods		
for Summer			Skirts		
for Winter			Handkerchiefs		
Nightdresses			Corset Covers		
for Summer			Combinations		
for Winter			Sundries		

by bills held by the housewife, or store records when they were bought on credit. Moreover, the investigator, being herself a colored person, was

able to meet the families on intimate terms. They cordially received her and answered the inquiries she made to the best of their ability.

CHAPTER III

OCCUPATIONS, INCOMES AND SOURCES OF INCOME.....	180

One hundred and sixty-one persons in the families studied were breadwinners. Of this number twenty-seven were employed in semi-skilled, skilled, or professional occupations, while the remaining one hundred and thirty-four were laborers or domestics.

Number of Breadwinners:	
Fathers	96
Mothers	52
Children	13
Total	161

The range of employments in which the

majority of the persons were engaged as laborers included every kind of occupation classified by the census of 1910 except one, extractive industries. Since Philadelphia is not a center for this type of work, we can say that the group was represented in all of the principal occupations of Philadelphia.

The family incomes derived by wage earners from the various occupations in which they were engaged, ranged from \$766.50 to \$5,581.60. Seventy-five per cent of the incomes fell, however, between \$766.50 and \$1,970. The exact distribution of the incomes is shown in Table 2. It will be seen that only a small percentage of the families were able to maintain themselves in the higher income groups and also that the percentage of families in the income groups above the \$1,670-\$1,970 group tended to decrease with each increase in income. That is, the percentage of families in the higher income groups became increasingly smaller.

However, the average income per family tended to decrease, and the average per capita income for families of various sizes did decrease regularly for every increase in the size of the family, with the exception of the two families of nine and twelve members respectively. There, perhaps, had we had a sufficient number of families for the law of average to apply, the same decrease would have been noted. Although the average per capita income for these two families was not less than that of families of the next smaller size, nevertheless, it was not as great as that of families consisting of two or three persons. Thus we are justified in saying that the per capita income of the families under consideration decreased with an increase in the size of the family.

The incomes of thirty-three families were obtained entirely from the father's

earnings, while those of the remaining sixty-seven families contained contributions from mothers, children or lodgers. The percentage of families in the various income groups that received a part of their income from any one or more of these sources increased with an increase in the size of the income group. Indeed, every one of the twenty-five families that had incomes above \$1,970 secured subsidiary contributions to their incomes.

Moreover, as the size of the income increased, the percentage of families receiving additions to their incomes from each of the above mentioned sources, increased. This would seem to indicate that relatively more families in the higher income groups relied upon an increasingly larger number of sources of income than in the lower income groups. And when we record sources of income so as to show the number of sources from which each family received money, we find that a greater percentage of the families in the higher income groups than in the lower groups obtained their incomes from many sources. Thus Table 1 shows that in the first income group (\$767-\$1,067) 50 per cent of the families received incomes from one source and the remaining 50 per cent secured them from two sources; while in the seventh income group (\$2,573-\$2,873) none of the families received income from one source but 17 per cent obtained it from two sources, 66 per cent, from three sources, and 17 per cent, from four sources. Not only, therefore, did a larger percentage of the families in the higher income groups receive portions of their incomes from other sources than the father's wage but also from a greater number of sources than those families in the lower income groups.

Upon examining the relation of contributions to the income from other

TABLE 1
ANALYSIS OF INCOMES OF ALL FAMILIES, BY SIZE OF FAMILIES, SHOWING AMOUNT AND PERCENTAGE OF INCOMES, AND AMOUNTS CONTRIBUTED BY DIFFERENT MEMBERS OF THE FAMILY.

Persons in Family	NUMBER OF Fam- ilies	AVERAGE INCOME		AVERAGE INCOME CONTRIBUTED BY				PER CENT AND NUMBER OF FAMILIES RECEIVING INCOME FROM:										NUMBER AND PER CENT OF	
		Per Family	Per Capita	Per cent Dollars	Father	Mother	Children	Lodgers	Father Only	Mother	Children	Lodgers	One Source	Two Sources	Three Sources	Four Sources	Other Sources than Father	Mothers Who Work	Children Who Work
2	28	\$1,835.22	\$926.11	Per cent Dollars	75.74 \$1,327.21	18.13 \$222.22	.01 \$14.76	6.12 \$188.03	25 7	61 18	63 1	21 6	25 7	64 18	11 3	..	75 21	64 18	100 1
3	29	1,683.44	561.14	Per cent Dollars	72.85 \$1,217.92	21.37 \$363.91	3.18 \$53.03	2.60 \$38.59	31 9	58 17	63 1	20 6	34 10	55 16	11 3	..	69 20	59 17	66 2
4	15	1,855.13	463.78	Per cent Dollars	76.96 \$1,248.00	8.57 \$98.00	3.03 \$100.53	10.54 \$260.00	47 7	33 5	13 2	33 5	47 7	34 5	13 2	06 1	53 8	33 5	67 2
5	14	1,601.37	320.27	Per cent Dollars	81.52 \$1,303.43	16.42 \$262.06	....	2.06 \$35.28	43 46	57 7	..	28 4	43 6	36 5	21 3	..	57 8	50 7	..
6	7	1,859.88	309.98	Per cent Dollars	71.27 \$1,364.57	15.99 \$316.45	12.20 \$163.43	0.54 \$15.43	13 4	55 4	14 1	14 1	43 3	43 3	..	14 1	57 4	57 4	67 2
7	5	1,625.68	232.27	Per cent Dollars	90.04 \$1,436.00	2.00 \$20.80	6.45 \$147.68	1.51 \$21.20	20 1	20 1	80 2	20 1	20 1	80 4	..	..	80 4	20 1	68 2
9	1	4,189.00	477.00	Per cent Dollars	18.62 \$780.00	....	71.47 \$3,120.00	6.91 \$289.00	..	..	100 1	100 1	..	..	100 1	..	100 1	..	28 2
12	1	5,581.60	465.05	Per cent Dollars	27.95 \$1,560.00	....	72.05 \$1,021.60	....	..	..	100 1	..	..	100 1	..	..	100 1	..	30 3

TABLE 2
ANALYSIS OF INCOMES OF ALL FAMILIES BY SIZE OF INCOMES, SHOWING AMOUNT AND PERCENTAGE OF INCOME, AND AMOUNTS CONTRIBUTED BY DIFFERENT MEMBERS OF THE FAMILY

Income Group	Income Groups	Number of Families	Average Number of		Average Income per Family	Average Income Contributed by:						Per Cent and Number of Families Receiving Income from:										Number and Percent of:	
			Persons per Family	Equivalent Adult Males		Father	Mother	Children	Lodgers	Father Only	Mother	Children	Lodgers	One Source	Two Sources	Three Sources	Four Sources	Other Sources than Father					
1	\$767-1,067	6	4.5	3.17	\$936.78	Per cent Dollars	48.31 \$607.00	49.16 \$605.95	.....	2.50 \$23.83	33 2	67 4	.....	17 1	50 3	50 3	.....	.....	67 4	66 4	.....	
2	1,068-1,368	22	3.5	2.51	1,253.00	Per cent Dollars	90.63 \$1,131.72	0.35 \$1.81	5.80 \$75.65	3.22 \$37.82	86 19	04 11	09 2	9 2	86 19	14 3	.....	.....	14 3	04 1	09 3
3	1,369-1,669	25	3.7	2.86	1,511.67	Per cent Dollars	86.54 \$1,303.84	9.18 \$144.83	.....	4.28 \$63.00	40 10	40 10	.....	24 6	40 10	56 14	04 1	.....	60 15	40 10	.....	
4	1,670-1,970	22	3.0	2.61	1,866.98	Per cent Dollars	73.84 \$1,358.06	24.93 \$85.99	0.56 \$9.93	0.67 \$13.00	09 2	86 19	09 1	18 4	9 2	77 1	14 3	.....	91 20	86 19	04 1	
5	1,971-2,271	9	3.8	3.28	2,055.97	Per cent Dollars	72.49 \$1,489.78	23.26 \$79.96	2.56 \$52.00	1.69 \$34.23	.....	88 1	11 1	11 1	78 7	22 2	.....	.....	100 9	88 8	06 1
6	2,272-2,572	4	2.2	2.70	2,459.27	Per cent Dollars	70.64 \$1,728.05	27.99 \$94.72	.....	1.37 \$136.50	100 3	100 3	.....	25 1	75 3	25 1	.....	.....	100 4	75 3	.....	
7	2,573-2,873	6	4.3	4.02	2,755.33	Per cent Dollars	52.25 \$1,430.67	22.49 \$624.00	9.99 \$277.33	15.27 \$123.33	.....	83 5	33 2	83 5	17 4	66 1	.....	.....	100 6	83 3	20 3
8	2,874-3,174	2	4.0	3.85	2,922.50	Per cent Dollars	44.65 \$1,305.00	5.61 \$161.00	17.89 \$520.00	31.82 \$933.50	.....	50 1	50 1	100 2	50 1	50 1	.....	.....	100 2	50 1	25 1
9	3,175-3,475	..	..	.....	.....	Per cent Dollars	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	3,476-3,776	1	3.0	2.65	3,749.00	Per cent Dollars	55.58 \$2,084.00	44.42 \$665.00	.....	.....	.....	100 1	.....	.....	100 1	100 1	.....	.....	100 1	50 1	.....	
11	3,777-4,077	..	..	.....	.....	Per cent Dollars	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	4,078-4,378	1	9.0	7.60	4,189.00	Per cent Dollars	18.62 \$780.00	74.47 \$3,120.00	6.91 \$289.00	.....	.....	.....	100 1	100 1	.....	.....	100 1	.....	100 1	.....	28 2
13	4,379-4,679	..	..	.....	.....	Per cent Dollars	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	4,680-4,980	..	..	.....	.....	Per cent Dollars	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	4,981-5,281	..	..	.....	.....	Per cent Dollars	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	5,282-5,582	2	7.0	5.83	5,572.80	Per cent Dollars	32.67 \$1,820.00	.....	36.02 \$2,010.80	31.31 \$1,742.22	.....	.....	100 1	100 1	.....	100 2	.....	.....	100 2	.....	30 3

sources than the father's earnings, to the size of the family, we find that the percentage of families containing from two to five persons receiving these contributions decreased, while the percentage of families containing from six to twelve persons receiving such contributions increased. Reference to Table 2 will show that 75 per cent of the families consisting of two persons received portions of their incomes from other sources than the father, while only 69 per cent of the families containing three persons, and 53 per cent of those containing four persons, obtained subsidiary contributions to income. If, on the other hand, we examine income Table 1 we shall see that the mothers were the persons who failed to contribute in as large a number of families of three and four members as they did in families of two or five. When there were only two persons in the family the mother could easily go to work, but when she had several young children she remained at home, if it were possible. When she had five children there was usually one old enough to manage affairs at home while the mother went to work. Yet when the family became very large, such as those containing seven, nine and twelve persons, we find a smaller percentage of the mothers working but, in their places, an increased percentage of children. For these reasons we note a decrease in the percentage of families of three and four persons, receiving contributions to their incomes from other sources than the father's wages and an increase in the percentage of families of a larger size receiving parts of their income from the several sources.

Making a reservation for families of three and four members whose deviations have just been explained, we notice a tendency toward an increasing percentage of large size families

securing income from several sources. For example, among families containing two members, 25 per cent obtained support from one source, 64 per cent, from two sources and 11 per cent, from three sources. Among families of seven, 20 per cent received income from one source and 80 per cent, from two sources, while 100 per cent of families of nine, secured income from three sources. It would appear therefore, that the percentage of families receiving contributions to their incomes from other sources than the father, tended to increase with an increase in the size of the family and with an increase in the number of sources from which additions to income were obtained.

We have been discussing contributions to income in relation to the percentage of families that received them. But this does not give the reader any idea of the number of contributors, which is a point of particular interest, especially in the case of children and mothers. There were one hundred and seventy-three children in the entire group of whom fourteen worked; i.e., only 8 per cent of the children were breadwinners. The percentage of children who worked increased with an increase in the size of the family and the size of the income. On the other hand, there were one hundred mothers in the group of whom fifty-two, or 52 per cent, worked. The percentage of mothers who were wage earners decreased with an increase in the size of the family but tended to increase with an increase in the size of the income. The percentage of income that was contributed by fathers and mothers tended to decrease with an increase in income while the percentage contributed by children and lodgers tended to increase.

Comparing the relation of the percentage of income contributed by the

various sources with the size of the family, we find that the percentage coming from fathers, mothers and lodgers tended to decrease with an increase in the size of the family while the percentage assignable to children tended to increase.

Judging from the incomes and sources of income which we have just examined we may attribute to the principal wage earners of the group of migrants under consideration, an ability to find work in an industrial city, an ability which was exercised by a larger number of persons as the size of the family or income increased.

SUMMARY

The breadwinners of the group investigated were employed mostly as laborers or domestics. The total family incomes, derived principally from these means, varied from \$766.50 to \$5,581.60 per annum. Seventy-five

per cent of the family incomes fell, however, below \$1,970. Both the family and per capita incomes tended to decrease with an increase in the size of the family, notwithstanding the fact that an increasing percentage of the larger families secured contributions to income from several sources. Similarly, a larger percentage of families in the higher income groups, than in the lower, received additions to the family income from many sources. In fact, but 33 per cent of the families were supported by the earnings of the father alone and none of these families possessed annual incomes of over \$1,970. Although only 8 per cent of the children in all the families worked, the percentage of income contributed by them increased with both the size of the family and the size of the income; while the percentage received from the parents decreased as the size of the family and income increased.

CHAPTER IV

OBJECTS OF EXPENDITURE

Food

Eighty-one of the one hundred families included in this study bought food from the corner grocer and ran an account with him. Sometimes, the grocer recorded in his ledger and in the customer's account book the cost of a purchase, and, occasionally, the articles and their quantity; but in the great majority of cases, he listed items only under the name of merchandise. The customer's account books were balanced at the end of every week or two weeks, according to the pay day of the head of the family. Small balances were allowed by the grocer to be carried from week to week; but failure to pay some deposit at regular intervals cut off the privilege of credit purchase.

The investigator found that over a

period of six months forty-two families, or 51.9 per cent of those making credit purchases, settled their accounts regularly on each pay day, while the remaining families each carried a balance of less than \$10.²⁹

²⁹ The exact food purchases of the families running credit accounts could not be obtained for an entire year; since as soon as a record book was filled and balanced it was lost or destroyed; and since the grocer, himself, failed to preserve the accounts after they had been settled. The purchases of forty of the eighty-one families who ran credit food accounts were, however, secured for a period of six months, dating from July 1 to December 31 inclusive. For the remaining thirty-nine families who also ran credit accounts, a record of purchases was obtainable for periods varying in length from four to three months. In order to secure a figure which would represent food purchases for one year, the exact expenditures for the period secured were doubled or quadrupled, whichever was necessary.

The reasons given for pursuing this method of buying food were: First, it was convenient. A large number of the mothers and fathers worked out. The children left at home to prepare the meals could readily obtain necessary provisions. Second, many of the families spent all their wages during the first part of the week and did not have the cash during the week to pay for food. Third, in some cases the father handled all the money and preferred paying bills to giving his wife money to spend. Fourth, some families felt that it added to their prestige to be able to run a bill, everybody was not trusted to such an extent by the grocer. Besides, the grocer treated them with some deference because they were regular customers.

Expenditures for food by the nineteen families not keeping store books were made by cash payment. Ten of these families made either wholesale or large scale retail purchases,³⁰ sometimes both. They showed the investigator receipted bills for barrels of flour, bags of corn meal, buckets of lard, barrels or bushels of potatoes and pounds of smoked meats. Their retail purchases were made from one of the chain stores of the American Stores Company or the Atlantic and

Pacific Stores Company. Each week, or every two weeks, when the head of the family was paid, they bought substantial quantities of groceries from one of the stores mentioned. In addition, the housewife made frequent purchases of vegetables and perishable articles.

The nine remaining families, because of failure to settle their bills with any grocer in the neighborhood, were forced to make cash payments for food. Their purchases were in small quantities, being limited to the meager contents of their purses and to the necessities of each meal.

On page 187 is presented a summary of the food purchases made during four weeks of November, 1919 by three separate families, each representing one of the three methods of buying food practiced by families included in the study and just described. The records of food expenditures were chosen for the following reasons: First, they are typical representations of the quantity of food bought in single purchases, the varieties of food obtained, and of the method of paying for food by the numerous families included in the study. Second, the records of the food purchases hereafter presented, cover the same period of time, November 1 to 28 inclusive. Third, two of the three families whose food accounts are cited in detail, consist of five persons. Their records can, therefore, be compared with a standard set for a normal family of five. Finally, no other three families possess all of the above similarities in regard to the food accounts.

A glance at this list of purchases impresses one with the varied diet of the families making them. Besides, a comparison of the items of provisions obtained by these families with the items suggested by the Bureau of Municipal Research reveals the fact that

³⁰ The food expenditures of the families that made wholesale or large scale retail purchases were determined by listing first the orders for a year, then those for shorter periods which were decreased to provide for a year. The housewife by her experience was able to say how long a barrel of flour would last or a bag of potatoes. So that relying upon her judgment, estimates for the year were made in the case of large orders. The weekly purchases of nineteen families buying food with cash payment were obtained by the investigator's making regular visits every other day to each of the nineteen families for a period of four weeks, when daily expenditures were obtained from the housewife. It was found at the end of this time that the weekly expenditures were extremely regular and they were, therefore, used as a basis for a one year estimate.

A SUMMARY OF THE ITEMS OF FOOD PURCHASED BY THREE FAMILIES DURING
NOVEMBER, 1919

<i>Bread and Cereals</i>	<i>Shortening and Oils</i>	<i>Dried Fruits</i>
Bread	Butter	Currents
Buns and Rolls	Lard	Prunes
Cake	Olive Oil	Raisins
Crackers	Suet	<i>Sugars</i>
Cream of Wheat	<i>Fresh Vegetables</i>	Molasses
Cornmeal	Cabbage	Sugar
Flour	Celery	<i>Beverages</i>
Oatmeal	Cranberries	Chocolate
Rice	Lettuce	Coffee
<i>Meats and Fish</i>	Potatoes, Irish	Tea
Beef	Potatoes, sweet	<i>Seasonings and Flavorings</i>
Fish, salt	Spinach	Pot Herbs
Lamb and Mutton	Onions	Thyme and Sage
Pork, Bacon, Ham	<i>Canned Vegetables</i>	Red Pepper
Sausage	Peas	Vanilla Flavoring
Turkey	Tomatoes	<i>Miscellaneous</i>
Veal	String Beans	Baking Powder
<i>Meat Substitutes</i>	<i>Canned Fruit</i>	Jello
Cheese	Pineapple	Ice
Beans, dried	<i>Fresh Fruits</i>	Pickles
Eggs	Apples	Salt
Milk, fresh	Grapes	Yeast cake
	Oranges	

ITEMS OF FOOD SUGGESTED FOR A FAIR STANDARD OF LIVING BY THE
BUREAU OF MUNICIPAL RESEARCH STUDY OF WORKINGMEN'S
STANDARD OF LIVING IN PHILADELPHIA. (Pages 53-54)

<i>Bread and Cereals</i>	Milk, fresh	<i>Fresh Fruits</i>
Bread	Peas, dried	Apples
Buns and Rolls	<i>Shortening</i>	Oranges
Cakes, misc.	Lard	Peaches
Cornmeal	Oleomargarine	<i>Dried Fruits</i>
Cornstarch	<i>Fresh Vegetables</i>	Prunes
Flour, wheat	Cabbage	Raisins
Macaroni	Carrots	<i>Sugars</i>
Oatmeal	Corn	Molasses
Rice	Lettuce	Sugar, gran.
<i>Meats and Fish</i>	Onions	<i>Beverages</i>
Beef	Potatoes, Irish	Cocoa
Chicken	Potatoes, sweet	Coffee
Fish, fresh	Spinach	Tea
Fish, salt	String Beans	<i>Miscellaneous</i>
Pork	Tomatoes	Baking Powder
<i>Meat Substitutes</i>	<i>Canned Vegetables</i>	Ice
Beans, dried	Corn	Pickles
Cheese	Peas	Salt
Eggs	Tomatoes	

the record presented in this study is more varied than that of the Research Standard. The latter calls for forty-nine articles of food while the list presented contains fifty-seven food items, thirty-one of which are those suggested in the standard set by the Bureau of Municipal Research.³¹

The question in our minds, however, is in how far is this list of purchases representative of the food consumed by all families included in the study. The investigator can say that it is typical of the ten families who made wholesale and large scale retail purchases, whose food purchases were obtained in detail and by whom the average number of various items of food bought during a period of four weeks was fifty-seven. In regard to the nine families who bought food in small quantities with cash payment and whose food purchases were also obtained in detail for a period of four weeks, the list is too varied, as the average number of items bought by such families during that period was thirty-one. Since the exact articles purchased by families buying food on credit were not all recorded by the grocer an exact reply as to the variety of provisions secured by eighty-one families purchasing food in this manner cannot be given. But, judging from those items which were

recorded, we feel justified in saying that for forty-six of the eighty-one families, the record of articles of food procured by the families presented in our illustration accurately depicts the variety of food obtained. The basis for this assertion is the fact that among this number of families during a period of four weeks, over forty different items of food were listed in addition to the frequent use of the word merchandise to represent articles purchased. On the other hand, because of the small total purchases and the consequent small number of items listed either by name or under the head of merchandise, we do not believe the list of articles of food purchased by three families and presented in this study to be representative of the remaining thirty-five families.

In the majority of cases food was bought in small quantities. Seventeen of the eighty-one families who made credit purchases bought dry groceries (sugar, coffee, tea, flour) for a week and meats and vegetables only when they were needed. But the remaining sixty-four families made all their food purchases in extremely small quantities. Moreover, in those cases where items were listed according to kind and quantity, one found that butter, tea and coffee were bought by the quarter of a pound, potatoes, and flour, by the pound, and meat according

³¹ The standards of living investigations made by Chapin, More, Cotton and Little, the New York Factory Investigating Commission, the Bureau of Estimates of New York City, the National War Labor Board, the United States Bureau of Labor Statistics and the Bureau of Municipal Research of Philadelphia were consulted in an effort to secure the requirements of a fair standard of living for the group of families under consideration. The standard set by the Bureau of Municipal Research seemed best fitted for this purpose: First, because it applied to the exact period covered by the present investigation. While the other studies might have been made to apply to this period by the use of an index number, nevertheless their exactness would have been lost by its use, since a general index number covering only budget expenditures has

never been composed. Second, the Bureau standard applied to Philadelphia workingmen. Of the other studies mentioned, the Cotton and Little alone was based on statistics collected in Philadelphia. But it was limited to workingmen in a particular territory. Hence, the price level adopted for the study did not apply to the entire city. Third, the standard we have chosen was based on statistics collected from Negro families, as well as from families belonging to other races. It is, therefore, equally applicable to Negro families. This fact was true of two of the other studies referred to, but neither of these possessed the additional qualification of applying to workingmen in Philadelphia, at the period covered by the present investigation.

to the demands of the particular meal for which it was secured.

The principal reasons for this kind of spending were: First, lack of knowledge on the part of the housewives as to how to buy. It never occurred to many of them that one should purchase more than she needed at the particular time; then, too, those who lived up to their incomes were forced to purchase as little as possible upon each visit to the store and thought that in so doing they were being most economical. Second, unwillingness on the part of the grocer to advance a large stock of food without a substantial deposit, which the purchaser was usually unable to make after meeting the many demands upon his wage.

In reviewing the manner of buying food by the group of families under consideration, one seems to see a relationship between the method of paying for food, the quantity which is bought at one time and the income of the family. The three families that made wholesale cash purchases belonged to the upper income groups, as did also the seven families who made cash large-scale retail purchases, and the seventeen families who bought credit weekly stocks of provisions but settled at the end of each week. On the other hand, each of the nine families who, because of bad credit reputation, were unable to run an account and who secured provisions only for immediate use, belonged to the lowest income groups. We do not seek to maintain that if all the families had had incomes as large as the three wholesale buyers, they would have bought their food in a similar manner; for many of the sixty-four families in the credit group of small-quantity-buyers could have made more economical purchases with the means at their disposal. But it is significant to point out that the nine families who had bad credit and who

made unwise purchases did not make enough money to meet their obligations, not to speak of buying provisions in advance; on the other hand, the twenty-seven families in the upper income groups showed a tendency toward wise expenditures for food and prompt payment of debts contracted in securing provisions.

The cost of food for the families included in this study can best be shown by ascertaining the cost per male adult unit per week. This cannot be determined until the families composed of persons of varying age and size have been reduced to their equivalents in adult males. The United States Department of Labor, Bureau of Labor Statistics,³² after careful studies and comparisons of food consumption, using the food consumed by an adult male as a basis, ascertained what proportions of the food consumed by an adult male were consumed by the other members of the family. Their results were expressed as follows:

Adult male.....	1.00
Adult female.....	.90
Child, 11-14 yrs.....	.90
Child, 7-10 yrs.....	.75
Child, 4-6 yrs.....	.40
Child, 3 yrs. and under.....	.15

Applying this scale, the equivalent of each family in units of an adult male was worked out. Dividing the amount spent for food by each family by the number of equivalent adult males in the family, we obtained the expenditures made by each family per adult male unit per week. These were averaged and expressed in Tables 3 and 4 under the head of average food expenditures per adult male per week. The preceding calculations

³² *Monthly Labor Review*, U. S. Dept. of Labor, Bureau of Labor Statistics, Washington, May, 1919, p. 148.

NEGRO MIGRANT FAMILIES IN PHILADELPHIA

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TABLE 4
ANALYSIS OF THE EXPENDITURES OF ALL FAMILIES BY THE SIZE OF THE INCOMES, SHOWING THE AMOUNT AND PERCENTAGE OF INCOME SPENT ON EACH ITEM IN THE BUDGET

[illegible]

have made it possible for us to compare families regardless of differences in the number and age of their members and to apply a like standard to all of them.

If, therefore, we take the cost set by the Bureau of Municipal Research³³ for food per adult male unit per week as a standard and compare the expenditures made for the same by the families under consideration, we shall be able to determine the number of underfed families. We find as a result of this process that as the income increases, the percentage of underfed families decreases. Thus we see that the average food expenditures per adult male per week increases from \$3.26 for families with an income varying from \$767-\$1,067, to \$5.80 for

percentage of underfed families in various income groups, it would seem that families in an income group below \$1,670-\$1,970 were unable to obtain an adequate food supply. For an illustration see table on this page.

If we examine the expenditures of the entire group of families, we shall find that the average number of dollars spent on food tended to increase, while the average per cent of income spent in this manner tended to decrease with an increase in the income: but that both the amount and the per cent of income tended to increase with an increase in the size of the family.

Clothing

The expenditures for clothing, the investigator obtained by going over a

PERCENTAGE OF UNDERFED FAMILIES

Among Families with Incomes Varying from	\$167-1,067	Six.....	Out of Every Ten Families Were Underfed
" " " " " "	1,068-1,363	Three.....	" " " " " "
" " " " " "	1,369-1,669	Two.....	" " " " " "
" " " " " "	1,670-1,970	Less than one	" " " " " Were
" " " " " "	1,971-2,271	One.....	" " " " " "
" " " " " "	2,272-2,572	No.....	" " " " " Were

families with an income varying from \$5,282-\$5,582, while the average food expenditures per adult male per week decreases from \$6.03, for families of two, to \$1.07 for families of twelve.

Moreover, judging from the percentage of underfed families, the table seems to show that families consisting of more than three persons were underfed; for only in families consisting of this number of persons was the percentage of underfed less than one in ten families. In families consisting of more than three persons, the percentage of underfed was much greater. On the other hand, judging from the

carefully prepared list of garments and asking the housewife which of these had been purchased, for what price, and if any additional pieces of clothing had been bought. When wage-earning sons and daughters purchased their own clothing, they were individually interviewed. But in the great majority of cases the wife knew the garments purchased by each member of the family and their cost, although she had not bought them herself.

The almost uniform practice of wearing each others clothing made it impossible to list garments under the head of the person by whom they were worn. A new coat, suit, two hats or more, would be bought by the family and used by all the girls; or, in the case of men's clothing, by all the boys. In disputes as to who should wear an

³³ The cost of the articles in the food budget recommended by the Department of Municipal Research of Philadelphia for November, 1919 and adopted by us as a standard for food allowances in this study was \$12.96 per week for a family of five or \$3.71 per male adult unit per week.

article, the older children seemed always to be given the preference. Also, when some of the children worked and purchased their own clothing, those who did not work wore the cast off clothing of their more prosperous sisters and brothers. The prudent mothers made these garments over to fit the younger children and thereby provided them with neat and comfortable apparel. In other families, the clothing was worn exactly as it was handed down. But this manner of distributing garments among the various members of the family made it impossible to list clothing expenditures other than by total purchases for the entire family.

Gifts of clothing were very few. This may appear surprising to the reader, but let him recall that the families included in the investigation were new-comers to Philadelphia. They knew practically no one in that city from whom they might obtain such assistance; and their work was not of the nature to offer it to them, for the men were mostly unskilled laborers in manufacturing establishments, the women, cleaners of buildings, factory hands or day workers. So there were left no sources other than charity organizations from which to obtain free articles of clothing. None of the families included in this study had resorted to help from charity in any form during the period of the investigation nor previous to it. The five families that reported gifts of clothing were as follows:

The nature of the occupation of the persons in these families, receiving gifts of clothing, and the differences in the incomes of the families seem to show that they received gifts not so much because of necessity as of opportunity to obtain them.

Credit purchases of clothing were seldom made. Only twelve families reported this method of purchasing. These families all belonged to the lower income groups and told the investigator that this was the only means by which they could obtain garments. The reason given by the remaining families for "paying cash or going without," as they put it, were as follows: First, the startling differences between the prices of the credit merchants and the department stores; second, a tendency on the part of credit merchants to consider these families transients and, therefore, to make them few offers, and these extremely extortionate.

As in the case of food, so in clothing, we shall judge of the nature of the clothing by its cost. The Bureau of Municipal Research Standard, which we have adopted as a guide in estimating the cost of clothing, allows \$346.63 for this item, in a family of five, or \$98.75 per adult male unit per year. In order to compare clothing expenditures of families in our study with those set down in the Standard, we had first to reduce the families to their equivalent adult male units. "No system has been devised, however, by which satisfactory comparisons between

OCCUPATIONS OF HEADS OF FAMILIES RECEIVING GIFTS

<i>Family Number</i>	<i>Occupation of Head of the Family</i>	<i>Income of Family</i>
64	Butler	\$1,440.00
49	Nurse	1,876.80
37	Cook	1,300.00
15	Domestic	1,768.00
3	Laundress	1,170.00

families can be made with reference to expenditure other than food, although, probably, comparisons on the basis of food consumption would be about as accurate as any that could be made."³⁴ Assuming that they are, we have used the scale prepared by the War Labor Board and based on food consumption, to reduce the families in this study to equivalent male adult units for the purpose of comparing clothing expenditures. Dividing the amount spent on clothing per year per family by the number of equivalent adult male units in that family, we obtained the cost of clothing for this unit. Comparing the average cost per adult male unit for families of various sizes with \$98.75, the amount allowed by our standard, we found that families consisting of more than three persons were, on the average, underclothed, as were also families with an income of less than \$1,670-\$1,970.

The amount of income spent on clothing by the families under consideration tended to increase, while the percentage of income devoted to this purpose varied, tending, however, to remain approximately the same with an increase in the size of the income. Both the number of dollars and the percentage of income expended on clothing tended to increase with an increase in the size of the family.

Rent

The amounts spent by each family on rent were obtained by asking the rental charge per week or per month during the year 1918-1919. Replies were given mostly on the basis of one month, because so many of the families lived in rooms and settled with the proprietor of the house upon the pay day of the head of the family, which came usually once a week. Increases in rent during the year were asked for

as well as changes due to moving. It was found that the latter seldom existed for, owing to the congested housing conditions, there was practically no place to move, and the difficulty of finding a house or even a room, made a family reticent about searching for another, once it was located.

The investigator also noted the type and condition of each house which was visited. She found that the thirty-seven houses, containing either four, five, six or seven rooms, occupied by families contained in this study, were two story brick dwellings, without gas or a bath and with toilets in the yards. The seven room houses differed from the six room only in that they had a summer kitchen, which was used, however, all the year. The winter kitchen had been converted into a dining room, while the dining room itself was used as a living room or a bed room. The remaining eight houses rented by families investigated were three story brick residences with gas, baths, and furnaces providing hot air heat.

With four exceptions, the physical condition of each of these houses was very poor. Regarding forty-one houses the investigator finds marked on her schedule such comments as these: Boards on window-sills, steps, shutters, worn off and broken. . . . Plaster falling in nearly every room. . . . Floor boards broken. . . . Boxes placed over holes in the floor. . . . I nearly fell into a cellar. . . . Wall paper torn off in the hall. . . . Wall paper falling from ceiling and walls in four of the five rooms. . . . House does not look as if it had been painted inside, nor outside, since being built. . . . Toilet drainage out of repair. . . . Water has to be poured down hopper by the bucket. . . . Underground leakage that keeps water from the toilet in the yard. . . . Odor from toilet is vile. . . . Water

³⁴ *Monthly Labor Review*, May, 1919, p. 148.

supply too weak to flush the hopper well. . . . Chimney must need cleaning out, as the stoves do not draw well. So much smoke in the house that I thought it must be on fire. . . . It never rains but it pours into this house. The roof must leak all over.

Similar notations were made concerning each of the houses and often several of the preceding comments applied to the same house. There were, however, four exceptions to which attention should be called: viz., the house occupied by family eighty-five, which was a two story brick with five rooms, heated by latrobes; that occupied by family sixty-five, which was a seven room brick with bath, gas, heated by a furnace, and two three story brick houses with bath, gas and furnaces in good order, occupied by families seventy-one and one hundred, respectively. All of these dwellings were in excellent physical condition and were kept in repair. The first of the houses rented for \$26 per month, the second for \$25 per month, while the third and fourth were being bought. The payments made during the year toward the purchasing of the houses were listed under the caption of rent.

The houses rented by families included in the study and sublet to other persons than those in the family, were among the four, five, six and seven room houses, mostly occupied by two families who came from the South together. But the rooms in six of the three story houses were sublet by the principal tenant to many persons or families. For example, family number twenty-eight rented two houses containing twelve rooms each. The husband and wife, of whom the family consisted, occupied three rooms on the first floor of house one and sublet the other twenty-one rooms, furnished or unfurnished as was demanded, to sixteen different families and individuals.

The remaining fifty-five families of our study, that rented rooms, secured them from tenants, in the manner of family number twenty-eight. Only in these cases, usually owners not living in the house themselves had rented or bought a dwelling house, the rooms of which they sublet to many and various persons. Here the real housing problem was apparent. The proprietor came around only on rent day. There was no janitor; the halls and steps were dark, cold and dirty. The cellars and yards were used by the tenants as dumping grounds for their trash. The houses were, on the whole, run down. The one bathroom was extremely dirty and unkempt; many of the window panes were broken and stuffed with rags; there was an alarming need of paint and plaster.

Moreover, these houses were not built for occupation by several families and had not been remodeled to suit their needs. Although a family might have a sufficient number of rooms to house itself, it could not obtain under the conditions provided, the physical necessities for household duties. When the landlord sublet the rooms of an entire house, he provided no heat. Stoves were therefore placed in rooms not built for ventilation by this kind of heating, resulting in the room's being filled with close, dry air. Add to this the fact that a bed room had been turned into a kitchen, where a large size cook stove was usually placed, and from which odors of food and damp clothes being dried by the heat of the cook stove were constantly streaming into the adjoining rooms. Beside these unhealthy conditions, there were often as many as ten families in one three story house, using the same bath and toilet. It is apparent, therefore, that such dwellings as those in which lived the families who rented rooms, were entirely unfit for occupation by many families.

The average price paid for renting one room was \$163.26 per year, only \$6.05 less per year than the average cost, \$169.21, of renting a house of four rooms, while the average cost of renting two rooms, \$183.13 per year, was \$13.92 greater than the average cost of renting a four room house. And the average cost of renting three rooms, \$198 per year, was greater than the cost of renting either a four, five or six room house. It was cheaper, therefore, to rent a house, but houses were not to be had, so a room had to be taken at the price charged. The price for one room varied from \$2.50 to \$4.50 per week, the fifty cents usually being added for gas. The price for two or three rooms, while rising as high as \$6 or \$7 per week, often fell as low as \$2 or \$3 because of the poor condition of the rooms. In estimating the price that was charged for rooms, the proprietor seemed first to calculate what amount it was necessary to charge for each room rented, in order to obtain the rent of the house, and then to add fifty cents to one dollar on more favorably located rooms, such as the first or second floor front.

The cost of renting a two story brick house such as we have already described, varied from \$8.50 per month for a dwelling with a leaking roof, floor boards broken and plaster all but fallen, to \$26 per month for a dwelling equipped with modern improvements and kept in a habitable physical condition. The rent paid for three story houses ranged from \$17 to \$25 per month, but the condition of none of the houses that rented for these prices was such as to make them suitable for homes.

Forty-five of the one hundred families investigated, rented houses, and twenty-six of this number occupied their houses alone, without subletting or taking in lodgers. The percentage of families renting houses and the

percentage renting and occupying an entire house, were greater for each higher income group; while the percentage renting rooms decreased with each higher income group. Moreover, the average income of families renting houses was above that of families renting rooms. That is, the possibility of renting a house seemed to increase with an increase in income. It is also significant to point out that the number of rooms occupied per adult male unit increased with the increase in the size of the income group, and that until the income group was reached allowing \$1,671-\$1,970, less than one room per adult male unit was provided.

The percentage of families of various sizes that rented rooms or houses fluctuates so greatly that but one conclusion can be drawn: to wit, the size of the family had practically no influence on the question whether a house or a room should be secured. When one recalls the housing conditions of the period in which the study was made, it will become more apparent to him that even the number of persons to be provided for had nothing to do with the securing of a house. It depended upon opportunity plus the ability to pay the price that was charged. Thus we have seen that the families in the upper income groups, that were able to pay, secured houses and rooms in sufficient numbers to accommodate each adult male unit.

In regard to the number of rooms occupied per adult male unit in families of each size included in the investigation, we find that families consisting of more than four persons were housed with one or less than one adult male unit in each room, but families above this size show on the average eight-tenths to five-tenths of a room, for the same unit. Such congested housing existed in twenty-eight families, containing five, six, seven and nine persons. Furthermore, the average in-

come of families renting rooms was above \$1,500 but less than \$1,600. The incomes increased within these limits with each increase in the number of rooms rented. The average number of dollars and the average percentage of the total income spent on renting rooms increased with an increase in the number of rooms rented. The latter occurrence was also accompanied by an increase in the average income of families renting rooms.

Turning our attention to families that rented houses, we discover that their average income was above that of families renting rooms. The lowest average income for the group renting houses was \$1,620.75 and the highest \$5,564. The average income increased regularly between these two figures with each increase in the number of rooms in the house rented. The average number of dollars spent on rent fluctuated, tending toward an increase, while the percentage of the total income spent on rent also fluctuated, but tended toward a decrease with an increase in the size of the house rented and the accompanying increase in the average income of families renting houses of larger sizes.

Taking into consideration, however, the total expenditures on rent by all families, Tables 3 and 4 show that the amount of income spent on rent tended to increase, while the percentage of income devoted to this purpose tended to decrease with an increase in the income. On the other hand, both the number of dollars and the percentage of income spent on rent tended to increase with an increase in the size of the family.

Fuel and Light

The table in the column opposite, shows that coal and kerosene³⁵ were for

³⁵ Expenditures on fuel and light were obtained in three different ways. In the first place,

the most part bought in small quantities. Coal was secured by sixty families in buckets. The grocer kept a small size coal bucket in which he first measured the coal and from which he poured it into the purchaser's receptacle. The usual price for a bucket of coal was thirteen cents, or two buckets for twenty-five cents. Twenty families also reported purchases of kerosene by the quart. These were mostly families of the lower income groups who secured this item on credit. Only twenty-two families used gas for cooking or lighting. This was largely due to the fact that few of the houses had gas in them and also to the fact that many of the families were not accustomed to the use of gas. One family, number twenty-eight, used electric lights.

FUEL AND LIGHT PURCHASES

Number of families buying coal by the bucket: 60; ton or half ton: 40.

Number of families buying kerosene by the gallon: 64; quart: 20.

Number of families paying gas bill by the month: 14; with the rent each week: 8.

amounts and prices paid for coal and kerosene were obtained for forty-seven families from record books of credit purchases. Eighteen such records were secured for a period of six months and twenty-nine for a period varying from three to four months. The second manner of obtaining expenditures on fuel and light was by ascertaining from forty families, the number of tons of coal bought during the past year and the price paid for each. If gas was used, the bill for as many months as the housewife could produce or recall was asked for, or if a slot meter was used, the frequency with which quarters were deposited there-in. Some of the families buying coal by the ton procured kerosene from the grocer on credit, while others bought it from the distributing wagons of the Atlantic Refining Company. In all such cases an effort was made to determine the amount of kerosene consumed per week or per month and the cost of the same. Finally, the expenditures of thirteen families that bought heat and light producing products by cash payment from the corner grocer were estimated by asking the housewife the quantities bought at various times of the year and the prices paid.

The investigator found that the same reasons were given for buying coal, as for buying food, in small quantities. But, in considering coal, especially, the lack of storage facilities should be considered. When it is recalled that 55 per cent of the families rented rooms and that 73 per cent of this number rented one room, one will readily acknowledge that there was no place for a large number of the families to put a ton of coal. This point is further illustrated by comparing the number of rooms occupied by each family with the quantity of coal bought by the same family. From this data, we find that the percentage buying coal by the ton was greater among families renting houses. Since we have already seen that the income of families renting houses was greater than that of families renting rooms, it is not surprising to find that a larger percentage of the families in the upper income groups bought coal by the ton than in the lower income groups.

The average amount spent on fuel and light by families buying coal by the bucket was found to be \$79.86 per year, while the average amount spent by families buying coal by the ton, was \$73.77. Both of these averages are less than the allowance of \$84.23 given for fuel and light by the Bureau of Municipal Research study, and the allotment of \$93.64 in the "Suggested Budget" we have planned. Only twenty-six families reported expenditures on fuel and light equaling or exceeding the former amount, while but fourteen families spent as much as the latter standard.

The investigator felt that the small expenditure on fuel and light was due to the large number of families living in rooms with the consequent need for a reduced quantity of fuel and light products. Fifteen of the twenty-six families spending over \$84.23, or 58 per cent of this number, rented houses

containing four or more rooms, and had, therefore, not only occasion for the use of greater quantities of fuel and light products, but also better facilities for its storage than families renting rooms. To illustrate this point, further, it is significant to point out that but one of the twenty-six families spending over \$84.23 for fuel and light, lived in one room; while thirty-seven of the one hundred families included in this investigation lived in one room and spent less than \$84.23. This seems to show more conclusively that there was a relation between the amount spent on fuel and light and the number of rooms occupied by the family.

An examination of the expenditures on fuel and light by the families in each income group shows that the amount of income spent on these items increased irregularly, while the percentage of income devoted to such expenditures decreased with an increase in income. But neither the amount nor percentage of income spent on fuel and light products seems to bear any relation to the size of the family.

Amusement

All money spent in attending theatres, in taking excursion trips or for other forms of recreation was recorded under the head of amusement. Only twenty-one families reported expenditures for such purposes. The form of amusement enjoyed by twelve of this number were performances at moving picture houses or at Gibson's New Standard Theatre, a Negro vaudeville house; by seven, excursions to Woodside Park and Willow Grove; by two, sight seeing trips through the city.

The smallest amount expended on amusements during a period of one year by any one family, was \$5.20 for a day spent at Willow Grove Park by family seventeen; the largest amount was \$530.60 spent by family one hun-

dred, consisting of ten children, three of whom were self-supporting sons who went every week to Gibson's Theatre. The expenditures of these two families on amusements are both extremes, as the amount spent by the remaining families was neither as great nor as small, but fell between \$25 and \$65.

Only one of the twenty-one families devoting any part of their income to amusements, consisted of more than four persons.³⁶ Moreover, the per cent of the total number of families in the various income groups making amusement expenditures, the average per cent of the income spent by the families making the expenditures, and the average per cent of income for all the families in income groups where any one family made expenditures for amusement, tended to increase with an increase in income.

This would seem to indicate that income limited indulgence in amusements, for, in general, only families of a small size and large income enjoyed them. But a study of the contributions to church of all the families included in this investigation will reveal the fact that the social life was not limited to the few who reported expenditures which we have listed under amusements, but that it was integrally connected with the activities of the church.

Church

Eighty-three of the one hundred families included in the investigation reported contributions to the church. We have previously noted that the average amount expended in this manner by families in the various income groups bore a relation to the income; *i.e.* it increased with an increase in the size of the income. Our next question is, what influence did the size of the family have on such expenditures? If we examine the average percentage

of income devoted to the church by families of various sizes, we shall find that the percentages fluctuated to such a degree that the only conclusion possible is that the size of the family had no influence on the amount of money contributed to the church. It appears, therefore, that irrespective of the size of either the family or the income, 83 per cent of the families included in the study financially supported the church, and that the size of the income alone influenced the contributions by limiting their amount.

These contributions included not only regular weekly dues, but also money spent by forty-eight families in attending socials, concerts, entertainments, clubs and classes of the church. It is interesting to note that while each of the eighty-three families, aiding in the support of the church, did not financially patronize its social activities yet all of them attended some of its weekly functions. These activities were supported in preference to the theatre, dance hall, or other types of public amusement for the following reasons: First, the churches attended by the majority of the migrants opposed such forms of recreation, a sentiment which restrained participation in them by many families. Second, the fact that the most attractive commercialized houses of amusement were operated by white persons caused the Negro to be reticent about seeking admission to them. In the South he was not generally accustomed to frequenting such places, as they were usually closed to Negroes. Moreover, in Philadelphia he was always uncertain as to when and where he would be refused admittance. So the new-comer found it more agreeable to go to church where he knew he was wanted. Third, a church social was more attractive. Here you met all your friends. It was part of the group habit to attend such

³⁶ See Table 4. Amusement Column.

affairs. Everybody went. You were the odd fellow if you stayed away. The church was the leader, therefore, of not only the spiritual but also the social life of the migrant.

Insurance

Only two of the one hundred families under consideration failed to insure some one member. The reason given by each of these families for not carrying insurance was that in the South they belonged to companies that did not do business in Philadelphia. Agents did not come, therefore, to collect premiums. The insured had neglected to send them to the company and had thereby let his insurance lapse and, until the time of our study, had failed to take out another policy. This leads us to say that migration to the North resulted in the lapsing of some insurance in nearly all of the families investigated. Only those families that held policies in companies with branch offices in Philadelphia had continued to keep up their insurance. It required too much time and care to send premiums out of the city. Besides, it involved some doubt in the mind of the insured as to whether he would secure payment in case of death after having moved to a more hazardous climate. The migrant seemed to realize that the risk was increased and preferred taking out a fresh policy in a company that was willing to undertake the new risk and also one that was near at hand, so that he could obtain immediate payment without litigation.

The kind of insurance was, with few exceptions, industrial, a type of insurance especially designed to meet the needs of the wage earning and industrial population. The premiums were payable weekly and were collected by an agent of the company who called at the house of the insured. The amounts of the premiums varied from five cents

for the children to fifty or sixty cents for the father. Often, however, older sons and daughters who had been given their insurance to keep up when they began working, had failed to do so, and on reinstating themselves had to pay rates nearly as high as those charged their parents. The face value of the industrial policies carried by members of the various families, varied, but none of them were over \$500; indeed, only six equaled this amount, while the rest were between \$150 and \$250. In addition to straight life industrial policies, members of thirty-two families carried policies with sick benefit clauses. These agreed to pay a definite sum per week for a limited number of weeks in case of certain specified causes for illness and a lump sum at death.

Lodges and sick benefit assessment societies maintained entirely by Negroes also provided a means of insurance. Either the mother, father, or both parents of forty-three families belonged to such associations. Their popularity was due principally to the social life afforded through weekly meetings which were largely attended. The payments to these organizations were small, varying from five to twenty-five cents a week, and the returns generally about fifty dollars at death and two dollars a week in case of illness.

Ten families contained at least one person carrying endowment insurance. Although one member at least of ninety-eight families was insured in some manner, few families had come to realize that life insurance had any other purpose than to provide burial funds and protection against loss of income from illness. The ten families that carried endowment insurance thought of it as a savings fund, not to pay off mortgages, or help to buy a home, or to educate the children, but as a means of amassing \$1,000 to spend at some

future date. Yet it is encouraging that 10 per cent of the families should have viewed insurance as a means of saving for other than burial purposes.

No relationship could be pointed out between the number of insured families and the amount of the income of these families, or between the number of insured families and the size of the family; for the per cent of insured families in various income groups and in groups of families of various sizes fluctuated so greatly. Neither could any relationship be shown between the average per cent of the income spent on insurance, the size of the family or the size of the income; here, also, the percentage fluctuated markedly. Inability to draw such conclusions is not surprising when one considers that the cost of insurance and the amount carried are individual matters depending largely upon the physical condition of the insured, and his opinion as to how much insurance is necessary to his protection.

Furniture

Expenditures on furniture and furnishings were made by fifty-eight families. The smallest amount spent for this purpose during one year by a single family was \$5, the largest amount, \$750. Between these two extremes there were annual expenditures by twenty families of more than \$5 but less than \$100; by thirty families, of more than \$100 but less than \$200; by three families, of more than \$200, but less than \$300; and by three other families, of more than \$300 but less than \$400.

The percentage of the total number of families in each income group that made purchases of furniture and furnishings increased irregularly with every increase in the size of the income group. Also, the average percentage of income spent by families in the various income

groups on these items increased irregularly with each higher income group. This seems to show that the percentage of income expended on furniture and furnishings increased with income as did also the percentage of the number of families making the expenditures.

It will be recalled that a similar relationship was found to exist between the percentage of the number of families renting houses and those renting a small number of rooms, and also between the percentage of the income spent by families renting houses as compared with that of families renting a small number of rooms. Thus we saw that a larger percentage of the families in the higher income groups were able to rent houses. It is not surprising, therefore, that we should find a greater percentage of the families in the same groups able to buy and buying furniture, also able to spend and spending a larger percentage of their incomes for these articles.

The reader may question the inference that the financial ability of a migrant to rent a house has any connection with his buying furniture. The circumstances in this case, however, seem to warrant such a conclusion. Not one of the families we are considering was able to ship furniture from the South at the time of its departure, because of the war embargo on the shipping of such articles. A man had to consider, therefore, when renting a house, whether he was able to buy furniture to put in it. It is apparent, since furniture had to be purchased by all the families not renting furnished rooms, that many of them would not have money to pay for it in cash. We find, therefore, that thirty-seven families were securing furniture by means of the credit system. They usually paid \$2 a week. Thus we find twenty-five families reporting \$104 per year spent on furniture.

Medical Aid

All money spent for medical, dental, ocular and pharmaceutical purposes was listed under the caption, health. Forty-five families reported such expenditures. The smallest amount spent by one family during a period of one year was \$2 while the largest amount was \$175. Twenty-two families spent for this purpose under \$50; thirteen, over \$50 but under \$100; eight, over the latter amount but under \$150 and two over \$150 but under \$200.

Neither the percentage of families in the various income groups spending money on health, nor the average percentage of the income expended for the purpose by all the families in the different income groups showed any definite relation to the income. The same percentage of families in the lowest as in the highest income group reported health expenditures. The percentage of income spent on the average by the families in the various income groups for health, fluctuated to such an extent that no conclusions as to the effect of the one on the other could be drawn. As an explanation of the irregular tendencies in health expenditures, the investigator would say that the sudden change in climate made medical attention necessary for members of families in every income group. It was not left as a matter of individual choice, to be exercised by only the richer families, but became an urgent demand of many families all along the income scale.

Only two families reported free medical aid. These were families number thirty-seven and sixty-one, from which persons had gone to the free clinics of Douglass Hospital.

Carfare

Expenditures on carfare depended largely upon the distance from home

of the place of work or of the church attended. They bore no relation to the income³⁷ but rather to the number of persons working or attending church at some distance. Seventy-six families reported such expenditures, the minimum for which was \$31 and the maximum \$150, spent per annum by one family. Between these two extremes there were annual outlays for carfare by fifty-two families of more than \$31 but less than \$50; by thirteen families, of more than \$50 but less than \$75; by thirteen families, of more than \$75 but less than \$100, and by six families of more than \$100 but less than \$150.

Alcohol

This study was made after the passage of the Federal Prohibition Law. Nevertheless the investigator sought to ascertain expenditures on alcoholic drinks. Only ten families reported such purchases. Five of this number bought beer for their meals and said that it cost two dollars per week, or \$104 annually per family. Four other families each spent less than \$100 per year in this manner. Their purchases consisted of drinks bought away from home by the men. The outlay in one family of \$156 was to provide a stock of liquor for future purposes. The members of the family are not to be classed as drinkers, as the amount spent during one year would seem to indicate. But, they liked wine at Christmas and other occasions of celebration and so secured a store of it. The average percentage of income expended on alcohol by families in the various income groups tended to increase with an increase in the size of the income group.

³⁷ See Table 3. Note that the average percentage of incomes spent on carfare by families in various income groups fluctuated so remarkably that no conclusion could be drawn as to their relationship to the size of the income.

Tobacco

Sixty families reported expenditure on tobacco. The smallest amount spent by one family during a year was \$10, the largest amount, \$182. The purchases of forty families amounted to less than \$50, while those of sixteen families were more than \$50 but less than \$100, and those of but four families over \$100. The percentage of families, in the various income groups, that spent money on tobacco increased irregularly with an increase in the size of the income group, as did also the percentage of income spent on the average by all the families in each income group, for this purpose.

Miscellaneous

In addition to the previously discussed expenditures on sundries, there were three items, tailoring, telephone and reading matter, which we have classified as miscellaneous, since money was spent on them by only four families. The amounts paid for the services of these articles by three families were under \$50 and by one family, exactly \$200.

Savings, Loans and Gifts

Savings of some nature were reported by sixty families. Money was sent South to dependent relatives by thirty-eight families, while loans to friends or relatives were made by ten families. And money was paid in the settlement of debts by twenty-eight families.

The reader should be cautioned, however, against considering money spent for any one of these purposes as an indication that the standard of living was above or below the subsistence level. Such expenditures were made because of pressure of debts, poverty stricken relatives, friends in greater distress than one's self, or the acquisitive instinct. It is interesting to point

out, nevertheless, that the percentage of families in the various income groups having a margin above family expenditures to apply in the ways already stated, increased with each higher income group but decreased with an increase in the size of the family.

As has already been stated, sixty families saved some part of their incomes, either by putting money in the bank, in church thrift clubs, by hoarding it at home, or by investing it in Liberty Bonds, War Savings Stamps, Building and Loan Associations or in property. The number of families adopting any one or more of these means is shown below.

<i>How Money Was Saved</i>	<i>Number of Families</i>
War Savings Stamps and Liberty Bonds.....	27
Bank.....	37
Money Kept at Home.....	12
Invested in Property.....	5
Paid in Building and Loan.....	4
Paid in Church Thrift Clubs.....	2

The actual number of dollars saved per family fell between \$8 and \$981. The amounts falling between these two extremes can best be shown as follows:

<i>Number of Dollars That Were Saved</i>	<i>Number of Families</i>	<i>Per Cent of Families</i>
Less than \$100	18	.30
100-199.....	10	.16
200-299.....	11	.18
300-399.....	7	.15
400-499.....	2	.03
500-599.....	3	.05
600-699.....	3	.05
700-799.....	3	.05
800-899.....	1	.02
Over-900.....	2	.03

We find that the average number of dollars invested in the ways above

mentioned and the average percentage of income saved, as well as the percentage of families that made the savings, tended to increase with an increase in the size of the income but to decrease with an increase in the size of the family. Moreover, the average per capita income tended to decrease with an increase in the size of the family. The fact, however, that in groups of families of every size and in each income group, some family reported savings, shows an inclination to preserve a part of the income. But, the tendencies we have just pointed out show that it became increasingly difficult to save, as the family increased in size or the income decreased.

Deficit

In recording amounts spent on the various items in the budget of a family, we have given figures which represent the cost of the amount consumed, deducing in the deficit column the number of dollars due on these articles. Thus the word deficit has been used to show the debt of a family after the income had been exhausted. It includes grocery bills for food, consumed but not paid for, by fifteen families; clothing bills for garments, worn but not paid for, by twelve families; furniture bills for furniture, used but not paid for, by eight families; rent due for one family; borrowed money spent by four families for items recorded in their budgets; and in some families, the consumption of items unaccounted for and exceeding the income by not more than \$11.

Nineteen families reported deficits. These families all fell within the first three income groups, and their distribution showed a smaller number of deficit families as the size of the income increased. On the other hand, the percentage of deficit families increased with an increase in the size of the family.

The average percentage of income represented by the deficit decreased with an increase in the income of the families in the various income groups, but increased for each group of families of a larger size. Such relationships between the deficit of a family and its size or income are the converse of those we found to exist among families with savings. This leads us to say that families of a small size or with a large income were better able to stay out of debt than those of a large size or with a small income.

Summary

Eighty-one per cent of the families investigated bought food by credit purchases and mostly in small quantities. Of the remaining families, nineteen made large scale retail purchases and nine small quantity cash purchases. The assortment of foods bought showed, in the majority of cases, a somewhat greater variety than that suggested in the fair standard of living budget prepared by the Bureau of Municipal Research of Philadelphia.³⁸ Taking the cost of food determined per adult male unit per week by that study as a standard, and comparing it with the cost for the same unit to the families investigated, we find 25 per cent of the families were underfed. Moreover, the distribution of these families indicates that the probability of a family's being underfed increased with the size of the family but decreased with an increase in the size of the income. Making like use of the clothing standard set by the same study, we see that families consisting of more than three persons were on the average underclothed, as were also families with an income of less than \$1,670-\$1,970. The purchases of clothing were, with the exception of

³⁸ Beyer-Davis-Twing, "Workingmen's Standard of Living in Philadelphia." New York, 1919, p. 53.

twelve families, made by cash payment. Gifts of clothing were equally unusual. The houses occupied by the families were, with four exceptions, in an exceedingly poor physical condition. The most critical housing problem appeared, however, in single dwellings of twelve and fourteen rooms sublet to as many as sixteen different families or individuals. Only 26 per cent of the families occupied singly an entire house. Their distribution shows that the occupying solely by one family of a dwelling depended upon a large income rather than a large size family. Moreover, the latter were overcrowded to a degree not experienced by families with high incomes. Purchases of coal and light producing products were most frequently made in small quantities, *e.g.*, coal by the bucket, kerosene by the quart. Especially is this true of families living in rooms; whose purses limited the extent of lodging procured, which in turn restricted the facilities for the storing of fuel.

Turning to expenditures made on the sundry items, it appears that the amount spent on amusement was extremely limited in all families. But, we discover that the contributions to churches included money paid at church socials, which were more frequently patronized than commercial houses of amusement. Insurance was carried by one or more persons in ninety-eight per cent of the families. With the exception of endowment insurance carried by at least one member of ten families, industrial insurance was the universal type; its sole purpose being to provide a burial fund. The fact that many families were forced to leave their furniture in the South, due principally to the cost of carriage or war embargoes on freight, accounts for 58 per cent of the families' spending money on this item. Of this number, thirty-seven made their purchases by means

of weekly payments. Money was spent for various medical purposes by forty-seven families. The amounts so expended show no relation to either the size of the family or income. Their irregularity seems to indicate that a change in climatic conditions made medical attention a necessity rather than a choice to be exercised by families of financial means. Carfare expenditures were related to the distance of the place of work or church from the home and showed no relation to either the income nor the size of the family. Ten families reported expenditures on alcoholic drinks, varying in amount from \$36.50 to \$156 per annum. Purchases of tobacco were made in a considerably larger number of families, sixty in all. The smallest amount spent, annually by one family in this way was \$10, the largest \$182. Finally, miscellaneous items consisting of the services of tailors, telephones, and reading matter were reported by four families. The expenditures of families did not, however, always equal or balance with the incomes so that eighteen families show a deficit and eighty-two a surplus. Sixty of the latter number made annual savings varying in amount from \$8 to \$981.55.

A further resumé of the relation of income to expenditures would prove helpful in elucidating the expenditure tendencies found to operate within the group. The question, however, that arises in our minds is, how do the expenditure tendencies of this group compare with those of other groups? For purposes of comparison, therefore, we shall list the expenditure tendencies of our group beside those reported by the War Labor Bureau³⁹ for families it investigated in twenty-two shipping districts during the year

³⁹ *Monthly Labor Review*, U. S. Dept. of Labor, Bureau of Labor Statistics, Washington, D. C., May, 1919, p. 148.

1918-1919, and Engel's laws of expenditure. We find:

1. *As the income increased, the percentage spent on food decreased.*

Engel and the War Labor Bureau Study report the same.

2. *As the income increased, the percentage spent on clothing remained approximately the same.*

Engel: "As the income increases the percentage spent on clothing remains the same."

The War Labor Bureau: "As the income increases, the percentage spent on clothing increases."

3. *As the income increased, the percentage spent on rent, fuel and light decreased.*

Engel: "Whatever the income the percentage spent on lodging or

rent and for fuel and light is invariably the same."

The War Labor Bureau: "As the income increased, the percentage spent on rent, fuel and light decreased."

4. *As the income increased, the percentage spent on sundries increased.*

Engel and the War Labor Bureau Study report the same. Thus we see that the expenditure tendencies of the group, under consideration, were not only sufficiently regular to be stated in the form of definite tendencies, but also that the tendencies either agree substantially with Engel's historic laws of expenditures, or, where they fail to do so, coincide with the more recent findings of the War Labor Bureau.

CHAPTER V

A SUGGESTED BUDGET⁴⁰

Before we can determine conclusions concerning the standard of living maintained by the families whose budgets have just been analyzed, it is necessary to determine what constitutes a fair standard of living for the group under consideration. It is desirable to base budget allowances upon objective standards. But many of the sundry items which must be included in a budget do not lend themselves to concrete measurement. Upon what basis can one estimate the cost of carfare

⁴⁰ The "Suggested Budget" has been planned for a family of five, consisting of a father, a mother, a boy of thirteen, a girl of ten, a boy of six, during the year 1918-1919. Definite ages and sexes had to be assigned to the members of the assumed family, in order to determine the cost of an actual budget, for the consumption of individuals varies with their age and sex. The period of time, as well as the age and sex, used here, are those selected by the Bureau of Municipal Research of Philadelphia; since part of their study was adopted in the "Suggested Budget."

when Mr. B. lives two squares from his place of employment and Mr. A., twenty miles from the same factory? The amount that the members of a group of families found it necessary to spend on carfare is the only guide that we can follow for this item of expenditure. The criticism may be advanced that such a procedure involves circular reasoning, as the proposed standard is based upon a standard actually maintained. A standard of living must, however, be considered in the light of the group to which it is to apply. The habits of this group should be the guide. For a standard, principally controlled by "what ought to be," is limited by "what is," since it will never be adopted by any families unless it permits an exercise of their fundamental characteristics and tendencies. For example, if the families we have been studying spent recreational money in

the church and not in the theatre, a proposed standard of living for the group must make a similar allowance for the church. A practicable standard of living, while providing the physical necessities as determined by objective standards, should, nevertheless, make its allowances conform fairly close to the practice of the group under consideration.⁴¹

The budget which we have planned is, therefore, not an ideal estimate for a particular family, but, rather, it is an attempt to combine those items for which the families investigated actually spent their incomes, in such proportions as to make it possible for a family of five to obtain a standard of living which will meet not only the desires of an average family, but also the demands of physical requirements for the maintenance of the body in health and a fair degree of comfort. Perhaps the budget of not one family in the group studied will compare exactly with this we have set up, since, in order to obtain a standard which would fit the group as a whole, we have included all the items⁴² for which any one family spent money. Moreover, the "Suggested Budget" has not been limited to food, shelter, clothing, warmth, but has been extended to include all the sundry items which the families worked equally hard to obtain and which they considered quite as necessary. The quantities of these and all other items included in the budget have been determined by balancing the number of physical units, necessary for the maintenance in health and ordinary comfort

of five individuals of the ages specified, with the number of units consumed by the families investigated, in order to make the suggested standard meet both group tendencies and physical requirements. The quantities thus determined have been expressed in monetary terms by multiplying them by their market price in November, 1919.

Food

We have adopted as a fair allowance for food, the cost of the food requirements established for a family of five, by the Bureau of Municipal Research of Philadelphia.⁴³ This standard was based upon the scientific requirements of a workingman's family consisting of five persons and the records of the food consumed by 261 families.

Scientific analysis demands an equal number of calories for any race of people living in the same climate and carrying on work of a similar nature.⁴⁴ Various groups of families may, however, obtain the same number of calories from different kinds of food, which sell at a lower or higher price. The cost of one standard may not, therefore, apply to all groups. We have already made a comparison of the food purchased by the families included in this study and the items of food suggested by the Bureau of Municipal Research, and seen that there was substantially no difference between the kind of food suggested by the one and consumed by the other. The diet provided by the municipal study is, therefore, sufficiently similar to that secured by the Negro families to be adapted to them. Although the kind of food consumed by the group under consideration may be identical with that which is recommended, if the

⁴¹ Wm. F. Ogburne, *The Measurement of the Cost of Living Wages. Annals of the American Academy of Political and Social Science*, Philadelphia, January, 1919, p. 118.

⁴² Alcohol was not included in the "Suggested Budget," although it was found in some of the family budgets. Its sale is now illegal and we presume that it cannot be bought. Furthermore, we do not advocate its use.

⁴³ Beyer-Davis-Thwing, "Workingmen's Standard of Living in Philadelphia." New York, 1919.

⁴⁴ Bulletin 46, U. S. Dept. of Agriculture.

quantity consumed is not approximately the same, the cost of the municipal standard will not accurately measure the food consumption of our group. As stated in discussing food, the only way we could judge of the quantity of food consumed was by the price paid for it.

Since this study and that of the Bureau of Municipal Research both apply to the same city and the same period of time, it would seem that knowing the kind of food purchased, by the families under consideration, was similar to that contained in the standard we propose to adopt, we could judge how near the quantity set by the municipal standard was met by the Negro families, by comparing the amount of money they spent for food per adult male unit with the cost of this unit as set by the Bureau of Municipal Research. Sixty-five per cent of the families included in the investigation spent not more than one dollar over the amount, \$3.71, nor under ten cents of this amount, which is the calculated cost of food per week for an adult male unit, as established by the municipal budget. Judging the quantity of food consumed by the Negro families by the proximity of the expenditure of so large a percentage of the families to the established cost, it would seem that the municipal standard accurately represents the food consumed by the majority of the families.

A further reason for adopting the Bureau of Municipal Research food requirements to the Negro group is that the records of food consumption upon which it is based contained reports from Negro families: so that any standard derived therefrom must be applicable to them, as well as to all other races included in their investigation. And we have seen that this standard, based on the food consumption of 261 families, (including Negro families) and on the number of calories

necessary to maintain a family of five in health and comfort, is particularly applicable to the group of families under consideration, since the kind and quantity of food they consumed is substantially similar to that proposed by the Bureau of Municipal Research. We shall, therefore, adopt in the "Suggested Budget," the requirements and cost of food as outlined by the bureau standard allowing, as they did, \$674.30 for this item.

Clothing

In order to obtain a fair allowance for clothing, the Bureau of Municipal Research, on the basis of the results from the investigation of 261 families, made "a separate tabulation for each specific kind of article worn annually and its cost, and for the aggregate, the average number of articles worn annually." Affixing the market price to the average quantities of clothing worn by each member of the family, they were able to determine the annual cost of clothing to a family of the size already described. When we compare the expenditures made by the Negro families per adult male unit with the allowance of \$98.75, estimated for the same unit by the municipal study, we find that 57 per cent of the migrant families spent this amount or not more than \$3 over it, while 37 per cent spent an amount less than \$27 below it and only 6 per cent spent an amount \$40 below it. The proximity of the municipal allowance to the actual expenditures of the families in the migrant group led us to adopt it as a standard for the cost of their clothing.

Then, too, when discussing fair requirements for clothing, a single standard is applicable to all people in the same industrial group, living in the same climate and subject to the same customs of dress. The investigation by the Bureau of Municipal Research

concerns itself only with workingmen's families, to which the group included in this investigation belongs. Furthermore, the Negroes are not a people of foreign culture, but are Americans, and naturally adapt themselves to the customs of dress of this country. Italian women may go out without hats; Chinese men may wear slippers, but the American Negro wears the same kind of clothing as the white American. Moreover, it requires on the average, the same number of pairs of shoes, stockings, and other garments worn by Americans to clothe Mr. X as Mr. Y no matter to what race he belongs. The cost of clothing of Negro migrant families may, therefore, be judged from the cost as established in the Bureau standard, since the latter applies to American workingmen's families in Philadelphia, of which the Negroes are an integral part. In addition, the standard adopted was especially made to fit clothing requirements of a Negro family since the facts upon which it was based included reports from such families.

For these reasons we feel justified in adopting the cost of clothing, determined by the Bureau of Municipal Research as \$346.63, as an allowance for the clothing of Negro migrant families in the "Suggested Budget."

Housing

For a family of five, a two story brick house, facing on the street, containing six rooms, provided with a bathroom (fitted with a tub, wash stand and toilet), gas for lighting and cooking purposes, a furnace and laundry, is suggested. Houses of this description were, however, scarce: First, because the total number of houses available for Negroes was limited, since only houses in certain districts were rented or sold to them. There is always a certain number of desirable houses in

any one district. When you limit the territory in which people may live, this automatically further restricts the supply of dwellings of any one type. Second, although a few new neighborhoods were opened to colored people after the migration, these by no means met the demand. The Negro population of Philadelphia was increased without an equal increase in housing, which meant an even greater decrease in the chances of a family to obtain a desirable house.

As a result, few of the families included in the study, could secure dwellings such as we have advocated for the "Suggested Budget," and none for less than \$25 a month. Although few families investigated were able to obtain such houses, we feel that an allowance should be made which would permit the renting or buying of a similar dwelling and the possibility of their doing so should be taken up elsewhere in our study. An allowance of \$25 a month or \$300 a year is, therefore, recommended for rent in the "Suggested Budget."

Fuel and Light

The cost of fuel and light for a family of five, living in a six room house such as has already been described, can be determined by ascertaining the quantity of these products which is necessary to heat any such building. The United States Fuel Administration, after careful experimentation, concluded that six tons of coal a year were required to heat a six room house. Upon this estimate we shall base the coal allowance in the "Suggested Budget." The Bureau of Municipal Research measured the cubic feet of gas consumed by families. It investigated and ascertained the quantity required for lighting and cooking purposes. In adopting this estimate for gas and that of the Fuel Administration for coal, we

are assuming that when the standards for such items are set, they are applicable to all groups living in the same climate and under similar social conditions; moreover, that it takes a like quantity of coal and gas to heat and light any six room house. For these reasons, using the prices of November, 1919, we have made allowances in the "Suggested Budget" for coal and gas on the basis of the quantities determined necessary for heating and lighting a six room house by the United States Fuel Administration and the Bureau of Municipal Research of Philadelphia. One box of matches was the most frequent and the average quantity purchased by the families investigated, and has, therefore, been inserted in the "Suggested Budget." No allowance has been made for wood, for if fires are properly banked, they need not be built afresh all winter. Moreover, the allowances for coal and gas are so liberal that their advocates hold that wood and other fuel substitutes are dispensable, since an adequate supply of the more staple supplies is provided.

The cost of obtaining the above mentioned quantities of fuel and light products according to the prices of November, 1919 was as follows:

<i>Article</i>	<i>Unit</i>	<i>Price Per Unit</i>	<i>Annual Quantity</i>	<i>Annual Cost</i>
Coal, pea . . .	ton	\$9.95	3	\$29.85
Coal, stove	ton	12.30	3	36.90
Gas	1000 cu.ft.	1.00	26	26.00
Matches.	box of 500	.05	52	2.60
Total . . .				\$95.35

Amusement and Recreation

Amusement is one of the most important items in a family budget. Wholesome laughter is as necessary to

the maintenance of the body in health and efficiency as staple food and clothing. But amusement is entirely subjective. It does not lend itself to objective measurement. Ten cents may amuse Mr. Plain for an entire evening, while ten dollars will amuse Mr. Fancy for only one hour. The twenty-one families that patronized houses of amusement may not have got any more recreation and fun out of life than the seventy-nine families that stayed at home or went to church socials.

Nevertheless, some allowance for recreation should be made in a budget which is proposed as a standard and which would be considered fair by the majority of the group to whom it is to apply. We have set aside \$26 for this purpose, since approximately this amount was spent by those families who obtained a fair degree of recreational activity. Such families attended moving picture performances about once every two weeks, or in the warm weather made excursions to amusement parks. They thereby obtained sufficient recreation to keep their spirits buoyant, their bodies healthy, and their minds acquainted with this phase of life.

Church

As has been already noted, 83 per cent of the families included in the study made contributions to church. A fair standard of living for the group must make provision for this item. It is difficult, however, to determine an objective test for church contributions. While the church may set the amount necessary for members to contribute in order that its work may be perpetuated, the parishioners may make various responses to these demands. It appears to us that the best test of a fair allowance for this object of expenditure is the contributions of those families whose donations meet the desires of the church and the indi-

viduals making them, without unduly burdening the latter. We found that families spending annually about \$30 for this purpose could keep up their dues and at the same time attend a weekly entertainment at the church. We have adopted, therefore, as a fair allowance for the church in the "Suggested Budget," \$31.20, or a weekly contribution by the father of 25¢; by the mother of 20¢; by each of the children 5¢.

Insurance and Savings

Since 98 per cent of the families, upon whose budgets the study is based, carried some kind of insurance on one or more of the members of their families, we can without hesitancy, introduce this item into the "Suggested Budget." It would be impossible, however, to name the particular kind of insurance that should be bought, for the type of insurance demanded varies with individual circumstances. Nevertheless, an allowance of \$93.64 should be made to secure the purchase by the father and mother of some high grade form of life insurance. If the policies were taken out by these persons between the ages of twenty-one and twenty-six years, either a large face whole life, or a somewhat smaller twenty payment life, or a still more reduced twenty year endowment insurance, as well as a sickness and health insurance could be obtained for the cost above mentioned. We shall, therefore, make an allowance in the "Suggested Budget" of \$93.64 for life insurance.

Furniture and Furnishings

The reader will recall that the families for whom the standard is being set had no furniture when they came to Philadelphia. We shall therefore have to provide an allowance sufficiently large to permit the families to secure furniture for a house of the

size described under the caption *Rent*. To judge the cost of this, one cannot find a better basis than the actual expenditures of families that equipped such houses in a comfortable fashion. Since these families spent \$104 annually, we have allotted this amount as a fair provision for furniture and furnishings in the "Suggested Budget."

Medical Aid

In view of the fact that provision has already been made for health and accident insurance, we feel that \$50 is a sufficient amount to set aside for medical aid. The basis of this judgment is the fact that the Health Insurance Commission of Pennsylvania⁴⁵ found that "families of wage earners in industrial cities spent from \$30 to \$50 a year for health, in addition to receiving gratuitous care in public and private hospitals." Moreover, the average amount spent on health by 365 families to which the Philadelphia Visiting Nurse Society was called in July, 1918, was \$47.⁴⁶ Besides, in the group we studied, \$50 was both the modal and median, while \$61.74 was the average expenditure for this item. It would seem, therefore, that \$50 represents a fair standard for medical aid, since it closely approximates the actual cost of illness to the families under consideration, and the expenditure for the same purpose by workingmen in industrial cities.

Carfare

A regular allowance for carfare must be provided in a budget which will be considered fair by the majority of the group to whom it is to apply, for that

⁴⁵ Report of the Health Insurance Commission of Pennsylvania, Harrisburg. January, 1919. p. 32.

⁴⁶ Karl de Schweinitz, "Sickness as a Factor in Poverty," Proceedings of the National Conference of Social Work, Chicago, 1920. p. 157.

part of the city in which the families lived may not be within walking distance of the large industrial plants by which most of the wage earners are employed. Again, however, we meet the difficulty of determining an allowance which does not submit itself entirely to objective measurement. While the distance of the place of employment may set a concrete basis for estimating the cost of carfare, yet it is limited by subjective conditions. A frugal man may rise early, walk a few squares and thereby save buying an exchange ticket, which costs three cents in addition to the five cent initial carfare charge. For that reason, carfare allowances should bear some relation to the expenditures of the group to whom they refer, since they alone measure the distances individuals have to ride, or feel it necessary to, and will, therefore, ride.

If we provide for one wage earner ten cents a day for three hundred working days, or \$30, plus \$9 for the purchase of one exchange ticket each working day, and add \$7.86 for carfare for the rest of the family, we shall have a total expenditure for carfare of \$46.86. Comparing this amount with the average expenditure of \$45.79 made by all the families included in the study and also with the average expenditure of \$48.41 made by fifteen of the families that maintained a fair standard of living, we shall find that it not only provides an amount sufficient to meet the objective demands of a family (*i.e.* daily carfare of the principal wage earner and carfare for the family), but also approaches the sum that families found it necessary to spend for this purpose.

Tobacco

A standard of living to be considered fair must include all objects for which members of the group to whom it ap-

plies spend money. With 60 per cent of the families investigated spending money on tobacco, it becomes necessary to make some allowance in the "Suggested Budget" for this item. While an excessive allowance should not be included in a proposed budget, the provision which is made should conform fairly closely to the actual expenditures of the families. For that reason we have provided ten cents per day, or \$36.50 per year, for tobacco. This amount would secure a moderate supply of tobacco but enough to satisfy the majority of the smokers in the group, since forty-three per cent of them expended this amount.

Miscellaneous

Miscellaneous expenditures, including money spent for the tailor, telephone, or reading matter, were reported by three families. But unaccounted for expenditures not exceeding \$25 are listed for 97 per cent of the families investigated. It would seem, therefore, that some provision should be made for the miscellaneous expenditures in all families. We shall allow for this purpose in the "Suggested Budget," \$25, which is the extreme amount reported in the unaccounted for surplus, and, hence, a fair estimate of the miscellaneous expenditures of the group.

In order that the head of a Negro migrant family, consisting of five persons, two parents, a boy of thirteen, a girl of ten, and a boy of six, may secure for his family a fair standard of living, as outlined in the study, he must earn \$1,829.48 per year, or \$6.10 per day for 300 working days. This amount has been determined by examining the physical requirements, as far as they could be ascertained, for maintaining a family of the above described size in health and a fair degree of comfort. That it correctly represents the cost

SUMMARY OF THE COST OF A SUGGESTED BUDGET

<i>Item</i>	<i>Amount</i>	<i>Per cent</i>
Food.....	\$674.30	36.86
Clothing.....	346.63	18.95
Rent.....	300.00	16.39
Fuel and Light.....	95.35	5.22
Amusement.....	26.00	1.43
Church.....	31.20	1.71
Insurance.....	93.64	5.12
Furniture.....	104.00	5.68
Medical Aid.....	50.00	2.73
Carfare.....	46.86	2.56
Tobacco.....	36.50	1.99
Miscellaneous.....	25.00	1.36
Total.....	\$1,829.48	100.00

of a fair standard of living to the group for whom it is especially prepared, can be shown by noting the deficiencies in the standards of the majority of the families in the income groups below that including \$1,829.48.

According to the grouping of income adopted in this study, there are three income groups below that including \$1,829.48. Two-thirds of the families in the first of these groups (\$767-\$1,067), one-third of the families in the second (\$1,068-\$1,368), one-fourth of the families in the third (\$1,369-\$1,669) and less than one-tenth of the families in the fourth (\$1,669-\$1,970), which contains the required income for a family of five, were underfed. In addition, we found that families with an income of less than \$1,670-\$1,970 were underclothed, and that until this income group was reached, less than

one room per adult male unit was provided and that coal was bought by the bucket by over two-thirds of such families. Moreover, the smallest expenditures by the smallest percentage of families making such expenditures, on amusements, furniture, contributions to church, and savings were reported by families falling in income groups below that including \$1,829.48. The large expenditure on insurance by all the families in the income groups below this figure was probably due to insufficient income to provide any other means of protection. Such deficiencies in the standards of families with incomes of a less amount than we have specified, seem to point to the correctness of the conclusion that \$1,829.48 is necessary for a Negro family of the size mentioned to maintain a fair standard of living.

CHAPTER VI

CONCLUSIONS REGARDING THE FAMILIES STUDIED AND THE MIGRATION TO PHILADELPHIA

Now that the budgets of the families under consideration have been analyzed and a fair standard of living for the group set up, we are ready to compare

the incomes and expenditures of the families investigated with those required by the "Suggested Budget," for the purpose of determining to what

extent the migrant families upon whose budgets the study is based were able to secure a fair standard of living.

Since the families vary in size, we cannot compare their incomes until all the families have been placed on the same scale. We have previously noted⁴⁷ that there are no weights by means of which the consumption of all articles by families can be compared, but those based on food consumption; which are probably as accurate as any that are devisable. Making use of such weights prepared by the United States Bureau of Labor, and based on food consumption alone, we have reduced each family to its equivalent adult male units. This procedure has made it possible for us to compare the income, \$1,829.48, required by a family of five or, 3.95 adult male units, with that necessary for a family of any other size.⁴⁸

As a result of this process we find that in 64 per cent of the families investigated, the incomes from all sources were sufficient to maintain a fair standard of living, as described in the study; but that in only 41 per cent of the families was the income of the father alone large enough to secure

such a standard of living. Moreover, when the sixty-four families with incomes that will provide a fair standard of living are grouped according to the number of persons in each family, the percentage of families in each group decreases as the size of the family increases.

Number of Persons in Family	Total Number of Families	Families with In- comes Sufficient to Provide a Fair Standard of Living	
		Number	Per cent
2	28	28	100
3	29	22	76
4	15	9	60
5	14	3	21
6	7	1	14
7	5	0	0
9	1	0	0
12	1	1	100
Total	100	64	64

Thus we see that the wage earners of about two-thirds of the families included in the study were able to enter the various fields of work afforded by an industrial city and to obtain incomes that were sufficient to provide a fair standard of living for their families and that in nearly one-half of the families the chief bread winner alone was able to secure such an income. When we recall that these families came chiefly from the agricultural districts of southern towns and counties it becomes apparent that the procuring of a fair living wage under an industrial régime by so large a proportion is of particular significance.

But were the families with whom we are concerned able not only to secure a fair income but also to expend it so as to obtain a standard of living which is considered fair for a migrant workman's family in Philadelphia? To

⁴⁷ See pages 193-4.

⁴⁸ To illustrate: Family 94 contains seven persons, two parents, three sons, ages 9, 3, 1, respectively, two daughters, ages 7, 5, respectively, or 4.10 adult male units, according to the United States Bureau of Labor weights. The income this family should have in order to maintain a fair standard of living (this income is represented by X) is to 4.10, the number of adult male units which is equivalent to seven persons of the ages mentioned, as \$1,829.48, the income required for a family of five to obtain a fair standard of living, is to 3.95, the number of equivalent adult male units in a family of the size upon which the "Suggested Budget" is planned. That is $X:4.10::\$1,829.48:3.95$
 $X = \$1,898.70$.

The income required to maintain a fair standard of living for this family is \$1,898.70, while their actual income from all sources was \$1,040.

answer this question we must ascertain to what extent the budget we have proposed was maintained by the families under discussion. It has already been pointed out that the "Suggested Budget" is not expected to meet exactly the expenditure of any one family, but rather to express group tendencies. Nevertheless, it will prove helpful to determine how many families approached the standard set for the whole group.

Since the expenditures on food and clothing have already been measured according to the number of adult male units for which they provided, we can readily determine how many families meet the requirements set for these items, which cover 55.81 per cent of the total suggested allowances. Fifty-eight families spent almost exactly the amount set down for food, while twenty-eight spent only three dollars over this amount, and but twenty-five were underfed. In regard to clothing, the reports show that 57 per cent of the families equalled or exceeded these provisions by not over \$3; while 37 per cent of the families fell short of the required expenditure for this purpose by less than \$27 and only 6 per cent by \$40. This would seem to indicate that over 50 per cent of the families, with whom we are concerned, fulfilled both the food and clothing requirements in the "Suggested Budget."

Less than 15 per cent of the families investigated, however, spent the amount specified for rent or fuel and light. A still smaller percentage obtained the type of house advocated. The cause for so great a deficiency in these matters will be discussed later.

Similarly, we notice that amusement and insurance were not so well supported as the "Suggested Budget" indicates they should have been. But, it will be seen that the causes for more families not enjoying recreation and

taking out the proper kinds of insurance policies were not wholly due to the migrant's negligence. Failure to reach the insurance requirement was compensated, nevertheless, by other kinds of saving; which in sixty families equalled or exceeded the amount designated for the cost of insurance in the "Suggested Budget."

We deem it sufficient to state concerning the remaining sundry items, that the expenditures on them by at least 60 per cent of the migrant families approximated closely the allotment made in the proposed budget.

It would seem, therefore, that over 50 per cent of the families whose budgets are included in this discussion, met all the provisions of the "Suggested Budget," with the exceptions of insurance, recreation, housing and consequently fuel and light. Since a general deficiency is noted in these lines, an external cause must be sought; this will be discussed later. Furthermore, although the incomes of only 64 per cent of the families referred to were sufficient to secure them a fair standard of living, nevertheless, such a standard was obtained by from 50 to 60 per cent of the families, or by from 78 per cent to 93 per cent of those families whose incomes made its procuring possible.

Now can we, from a knowledge of these facts and those previously presented, derive any conclusions regarding the entire migratory movement to Philadelphia? Although the study is limited in scope we feel that there are a few facts, concerning the migration to that city, which with a degree of certainty, can be deduced from the investigation.

(1) Although the migrant families, whose budgets we have analyzed, showed a marked ability to obtain a fair standard of living, it is not to be concluded that their presence in Phila-

delphia was entirely satisfactory and desirable to the citizens of that city. A standard of living tells some of the truth, but it does not tell all. Quantities of goods can be purchased by the man who will work for them. But culture and education are bred after years, yes sometimes, generations of toil. With few exceptions the migrants were untrained, often illiterate, and generally void of culture. On the other hand, there stood thousands of the native Negro population of Philadelphia, who had attained a high economic, intellectual and moral status. They found suddenly thrown into their midst about forty thousand migrants, whose presence in such large numbers crushed and stagnated the progress of Negro life. The processes of assimilation which the colored citizens are carrying on cannot immediately bring back the pendulum which has swung to a position of depressed social, economic and moral life. Only gradually as the weights of ignorance, lack of culture, and increased racial prejudice, aroused by the white people against the whole Negro citizenry as a result of the tremendous increase in the size of the Negro population, are removed, will the pendulum return to normal. The pessimist groans that it will never regain this position and points to the previous culture level of Philadelphia Negroes as if it had been permanently drowned by a torrent of migration. Certainly none of us can deny that the migration retarded the steady march of progress of the colored people in Philadelphia.

(2) What is a handicap of a few years if, thereby, some day the Negro of the Mississippi delta or the Georgia fields shall attain the education and culture of the great American middle class! That this day may be realized, a process of training the migrant along many lines will have to be gone through.

The investigation we have made indicates three principal obstacles to the maintenance of a fair standard of living by the migrant families interviewed for the purpose of the study. To the extent that these failures apply to all migrant families, their eradication will be one method of alleviating and improving the position in which the migrant's coming has placed the colored inhabitants of Philadelphia. It is desirable, therefore, that we should consider the facts which prohibited the maintenance of a fair standard of living among the migrant families, with whom we are particularly concerned, and the means of overcoming these facts.

One of the most salient of the impediments was the large number of children to be cared for by a workingman. One hundred per cent of the families of a greater size than six were underfed, and less than one family in ten was underfed in families of two or three persons. While we have allowed \$98.75 for clothing for a family of five, less than \$71.99 was spent by families of a larger size than six, and only families of two or three persons were not underclothed. Besides, families consisting of more than four persons were housed with from $\frac{5}{16}$ to $\frac{8}{16}$ of a room per adult male unit. Moreover, no family of more than four persons spent money on recreation, and expenditures for medical aid were not made by the families of the two largest sizes found in this investigation. In addition, the per cent of families making savings, the number of dollars and the percentage of total income saved, showed a marked decrease with an increase in the size of the family. With one exception, families containing five individuals or a greater number, saved less than \$5 per capita. These facts seem to indicate conclusively that failure to maintain a fair

standard of living was, in many cases, due to the large size of the family and that a migrant was unable to provide such a standard if his family consisted of more than five persons.

An equally potent influence in deterring the migrant families from procuring a fair standard of living was ignorance resulting in unwise spending. Food and coal were often bought in small quantities because it was believed to be more economical to spend as little as possible at one time. Then, too, while credit purchase of food may have been mandatory for some families, with insufficient incomes, many families able to pay cash and take advantage of lowered prices failed to consider any other method of securing food. Besides, we find that over \$200 a year was paid in some cases for the rent of one room. Notwithstanding the congested housing condition, it is not improbable that a single room could have been secured for a lower price, or this money applied to the purchase of a house, which would afford healthier living conditions. Also, the types of insurance bought by the majority of the families were expensive for the service they rendered and ill fitted for protecting the insured. Better policies could have been obtained, but the policy holders were usually ignorant of this fact. Such failures on the part of members of the family who expended the income, resulted in a lower standard of living than might otherwise have been secured with the money at their disposal.

A final hindrance to the obtaining of a fair standard of living, not only by the migrant families but by all the Negro families in Philadelphia, was racial prejudice. This made impossible the securing of many items which are requisite to such a standard. The newly built modern house was not for

rent or for sale to Negroes. The houses most frequently obtained by them were in poor condition, old, and discarded by their former white tenants. This was true of all the dwellings in the neighborhood inhabited by the families whose budgets are included in the study. Yet the rental charges for such houses were maintained at a high figure. The most favorable types of insurance could not and cannot be bought by the Negro workingman. Even if he were willing to pay a higher premium rate than that quoted on the market, they are not for sale to him. This means that his family is not as well protected as it should be. Recreation appeared seldom in his budget; for the Negro was admitted to few places where it was offered, and many of the playgrounds, which his taxes went to help support that he might make recreation free for his children, plainly showed their disapproval of colored patronage. With such social conditions existing, money income has a depreciated significance in relation to the character of the standard of living, maintained by a Negro family.

There are, however, certain means which could counteract the influence of the disturbing forces which seem to offset the maintaining of a fair standard of living by some migrant families and are probably equally effective in prohibiting the progress of other Negro families. The first of these is education through the Negro church. It is the church which touches the Negro masses. What it commands, they do. If the church would instruct its members as to how to buy food, insurance, houses, it could exercise a powerful influence in checking unwise spending. Furthermore, the church could help to alleviate the housing problem by building houses instead of expensive church edifices at a cost of hundreds of thou-

sands of dollars. Next, the Negro business man has an opportunity to serve such as few vocations afford. He can provide houses, insurance, recreation for his people and thereby not only produce the commodities that are required for a fair standard of living, but set a standard by paying his Negro employes the wage which is necessary to maintain a fair standard. Finally, the city of Philadelphia has the responsibility of seeing that at least adequate housing is secured by over 100,000 of its population. It owes this not only to its Negro population, but to the citizens of Philadelphia, if it would remove the danger of the breeding and spreading of vice and disease, which follow congestion.

With the Negro church educating its legions of members as to the use and need of commodities which the Negro business man produces, and the municipality seeing that the necessary articles which the individual cannot provide are secured, the most impeding dynamic influences which offset the obtaining of a fair standard of living by the Negro migrant will be overcome. By adopting such means to train the migrant and to remove racial handicaps, it is believed that generations hence will pronounce the migration of 1917-1918 to Philadelphia, not the cause of the fall of the culture of the talented tenth, but the beginning of the spread of that culture to the Negro masses.

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EDITOR: CLYDE L. KING

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C. H. CRENNAN



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CONTRIBUTORS TO THIS VOLUME

AGGER, E. E.—Associate Professor of Economics, Columbia University. Contributing editor to the *Standard Daily Trade Service*.

For some time Assistant to President of the National City Bank, N. Y.

Editor, American Edition of Clay's *Economics for the General Reader* and author of articles on banking subjects.

BECKHART, B. H.—Lecturer in Banking, School of Business, Columbia University, 1921; Instructor in Economics and Social Institutions, Princeton University, 1920–1921; employed at Federal Reserve Bank of New York, 1919–1920.

CASE, J. H.—Deputy Governor, Federal Reserve Bank of New York, 1917 to date.

Was Vice-President, Farmers Loan and Trust Co., New York City, also Secretary-Treasurer-Vice-President, Plainfield Trust Co., Plainfield, N. J.

CRENNAN, C. H.—Economist, Continental and Commercial National Bank, Chicago; formerly member of faculty, University of Pennsylvania, Director, Research Bureau, Pennsylvania State Chamber of Commerce, and Assistant Editor of *The Annals of the American Academy of Political and Social Science*.

Editor-in-charge of several volumes of *The Annals*.

DODGE, HOMER J.—Editor, *Federal Trade Information Service*; President, The Treasury Correspondents Association. During the War reported financial and economic news for the international News Service, covering Treasury, Federal Reserve Board and other business departments.

Author of numerous articles on economic topics. Compiled speakers' handbook for Four Minute Men which contained information about war financing.

FANCHER, E. R.—Governor, Federal Reserve Bank of Cleveland, 1914 to date.

Formerly President, Union National Bank, Cleveland.

FARWELL, J. V.—President, John V. Farwell Company, Chicago; Director, Na-

tional Bank of the Republic, Chicago, and Harris Safety Deposit Co., Chicago; Director, Liverpool & London & Globe Insurance Co.; President, First State Pawners Society of Chicago.

Was President of the National Citizens League for the Promotion of a Sound Banking System.

FORGAN, J. B.—Chairman of the Board, First National Bank of Chicago.

Was with Royal Bank of Scotland for three years; later with Bank of British North America, with assignments to Montreal, New York and Halifax; Inspector of Agencies, Bank of Nova Scotia; Cashier and Manager, Northwestern National Bank, Minneapolis 1888; Vice-President, First National Bank, Chicago, 1892, President, 1900, Chairman of Board since 1916. Member Board of Directors, Federal Reserve Bank, Chicago, 1914–1919; President, Advisory Council, Federal Reserve Board, 1914–1920; Vice-Chairman, Currency Commission, American Bankers Association, 1907 to date.

GIDNEY, R. M.—Controller at Large, Federal Reserve Bank of New York.

For eight years engaged in banking at Santa Barbara and Bakersfield, California. August 1914, appointed secretary to A. C. Miller, member of the Federal Reserve Board; later, Federal Reserve examiner; 1917, Assistant Federal Reserve Agent at the Federal Reserve Bank of New York. Manager of the Buffalo Branch of the Federal Reserve Bank of New York, 1919–1921.

HARDING, W. P. G.—Governor, Federal Reserve Board, Washington, since 1916.

Vice-President, Berney National Bank, Birmingham, 1896, President 1902. Member Federal Reserve Board, Washington 1914. President, Alabama State Bankers' Association 1908 and Birmingham Chamber of Commerce, 1913.

JAY, PIERRE—Federal Reserve Agent and Chairman of Board, Federal Reserve Bank of New York since 1914.

Vice-President, Manhattan Company, New York, 1909–1914; Bank Commis-

- sioner of Massachusetts, 1906-1909; Vice-President, Old Colony Trust Company, Boston, 1903-1906.
- KEMMERER, E. W.—Professor of Economics and Finance, Princeton University. Professor of Economics and Finance, 1909-1912 Cornell University; Assistant Professor Political Economy, 1906-1909. Financial adviser to United States Philippine Commission, 1903; Chief, Division of Currency, P. I., 1904-06; Special Commissioner Philippine Government to Egypt, 1906; Financial adviser to Government of Mexico 1917 and to Government of Guatemala, 1919. Managing editor of the *Economic Bulletin*, 1907-1910; Associate editor, *American Economic Review* 1911-1914.
- Author numerous reports on banking and currency questions; *Money and Credit Instruments in their Relation to General Prices*, 1907, revised 1909; *Seasonal Variations in the Relative Demands for Money and Capital in the United States* (in report of National Monetary Commission) 1910; *Modern Currency Reforms* 1916; *The United States Postal Savings System*, 1917; *Monetary System of Mexico*, 1917; *The A.B.C. of the Federal Reserve System*, 1918.
- LOGAN, WALTER S.—General Counsel to the Federal Reserve Board. Practiced law in New York City in the office of Winter & Winter and also in the office of Cadwalader, Wickersham & Taft. Became Assistant Counsel to the Federal Reserve Board July 1, 1919, and General Counsel July 1, 1920.
- MCDUGAL, J. B.—Governor, Federal Reserve Bank of Chicago since 1914.
- National Bank examiner, 1901-1906; became official examiner of associated banks of Chicago, 1906; organized and conducted department of examination of the Chicago Clearing House and was its official head until 1914.
- MILLER, A. C.—Member Federal Reserve Board of Washington, D. C. since 1914. Assistant to the Secretary of the interior, Washington, 1913-1914. Flood Professor Economics and Commerce, University of California, 1902-13; Associate Professor Political Economy and Finance, Cornell, 1891-2; Professor of Finance, University of Chicago, 1892-1902; Professor History and Politics, University of California, 1890-1; Instructor Economics, Harvard, 1889-90.
- Author of papers on finance, banking, etc. in economic and financial journals.
- PHILLIPS, C. A.—Dean, College of Commerce, University of Iowa. Member of the Dartmouth faculty, 1911-1920. Member, The Inter-American High Commission.
- Editor, *Readings in Money and Banking* and author of *Bank Credit*.
- PATTERSON, E. M.—Professor of Economics, University of Pennsylvania, 1919 to date. Formerly Assistant Professor of Economics, University of Pennsylvania, 1915-1919.
- Joint author, Conway and Patterson, *The Operation of the New Bank Act*. Author, numerous articles on money and banking questions. Editor-in-charge of several issues of *The Annals*.
- POWELL, CHAS. L.—Member of law firm of Mayer, Meyer, Austrian & Platt, Chicago; counsel of the Federal Reserve Bank of Chicago, 1914 to date. Practiced law for twenty years in Iowa. Student of banking, especially the legal aspects of banking questions.
- REYNOLDS, ARTHUR—President, Continental and Commercial National Bank of Chicago, President, Continental and Commercial Trust and Savings Bank and President, Continental and Commercial Securities Company.
- Cashier, Guthrie County National Bank, 1893; Cashier, Des Moines National Bank, 1895-97, President, 1897-1915; First Vice-President, Continental and Commercial National Bank 1915-1921. Chairman, Federal Legislative Committee, A.B.A. 1905; Member Currency Commission A.B.A., Treasurer, A.B.A. 1910; President, A.B.A. 1913.
- REYNOLDS, G. M.—Chairman of the Board, Continental and Commercial National Bank of Chicago, Chairman of the Board, Continental and Commercial Trust and Savings Bank, Chairman of the Board, Continental and Commercial Securities Company. President, Con-

- tinental and Commercial National Bank, 1910-1921. President, American Bankers Association, 1908; Adviser, National Monetary Commission, 1908; Director, Federal Reserve Bank of Chicago, New York Life Insurance Company, Commercial Insurance Company.
- RICH, JOHN H.**—Chairman of Board and Federal Reserve Agent, Federal Reserve Bank of Minneapolis, 1914 to date.
- For many years president of a country bank and a manufacturer. President of the Citizens League of Minnesota, and active in the movement to secure the adoption of the Federal Reserve Act. Author of numerous monographs on Federal Reserve banking, the operations of Federal Reserve Banks and agricultural credit.
- SEAY, GEORGE J.**—Governor, Federal Reserve Bank of Richmond. For twenty years connected with a bank in Petersburg, Va. Later, a partner in the banking firm of Scott & Stringfellow of Richmond. In 1909 withdrew to carry on studies, following with close attention agitation for banking reform which resulted in the Reserve Act. Prepared case for selecting Richmond as Reserve Bank. Upon organization, elected Class B director. Elected Governor at first meeting of Board. Served as member of Federal Advisory Council.
- Writer on banking and railroad finance.
- SCOTT, WM. A.**—Director of the Course in Commerce and Professor of Political Economy, University of Wisconsin, Chairman of the Board of Directors of the Commercial National Bank, Madison, Wisconsin. Professor of History and Political Science, University of South Dakota, 1887-90; Instructor in Johns Hopkins University, 1890-92.
- Author, *Repudiation of State Debts*, 1893; *Money and Banking*, 1903; revised edit. 1910; *Money*, 1913; *Banking*, 1913; "Austrian School and Recent Developments," ch. VII revised edit. of Ingram's *History of Political Economy*, 1915.
- SPRAGUE, O. M. W.**—Professor Banking and Finance, Harvard, 1913 to date. Assistant Professor, Banking and Finance, 1908-1913; Professor Economics, Imperial University of Tokyo, 1905-08; Assistant Professor, 1904-5, Harvard.
- Author *History of Crises under the National Banking System*, 1910; *Banking Reform in the United States*, 1911; *Theory and History of Banking*, 1917, and many economic articles.
- WARBURG, PAUL M.**—Chairman of the Board, International Acceptance Bank, Inc. Member Federal Reserve Board for term 1914-1918.
- Was Director National Bank of Commerce, United States Mortgage and Trust Co., B. and O. R. R. Co., National Railways of Mexico, Wells Fargo & Co., Westinghouse Electric and Manufacturing Company. Resigned all directorships and trusteeships when appointed to Federal Reserve Board. Author many pamphlets on banking and currency, particularly in relation to the Reserve System both before and after its organization.
- WELTON, A. D.**—Director of Publicity, Continental and Commercial Banks, Chicago. General Secretary, National Citizens League; practiced law in Detroit; Editor, *Detroit Free Press*, 1905-1906, *St. Louis Post-Dispatch*, 1911 and *Journal of the American Bankers Association*, 1914-1918.
- WESTON, N. A.**—Professor of Economics, University of Illinois; Formerly Dean of the College of Commerce and Business Administration, University of Illinois.
- WHEELER, H. A.**—Vice-President, Union Trust Company of Chicago since 1910; Vice-President, 1899-1901, President, 1901-1910, Credit Clearing House, Chicago; General Secretary, Chicago Association of Commerce, 1906-1907, Chairman, Ways and Means Committee 1908, Vice-President, 1909, Chairman, Executive Committee, 1910, President 1911. President, Chamber of Commerce, U.S.A. 1912-1913, 1918-1919. Director and member Executive Committee, National Citizens League.
- WILDMAN, MURRAY**—Professor of Economics, Leland Stanford, Jr., University, 1912 to date.
- Founder, Cashier and Vice-President, Henry County Bank, Spiceland, Cal. Assistant Professor Economics, Univer-

sity of Missouri; Professor Economics and Commerce, Northwestern University; Organization Secretary, National Citizens League, 1911-1912; Bureau of Research, War Trade Board, and division planning and statistics War Industries Board, 1918-1919.

Author *Money Inflation in the United States*, 1905 and economic articles.

WILLIS, H. PARKER—Professor of Economics, Columbia University, Editor, *New York Journal of Commerce* and Director, Division of Analysis and Research, Federal Reserve Board.

Secretary, Federal Reserve Board, 1914-1918; Assistant to Monetary Commission, 1897-8; Expert, Ways and Means Committee, House of Representatives, Washington 1911-13; Banking and Currency Committee, 1912-13; President, Philippine National Bank 1916-7; Special Commissioner in Australasia for Chase National Bank & Central Trust Company, 1919.

Author, *History of the Latin Monetary Union*; *Principles and Problems of Modern Banking*; *The Federal Reserve*; *American Banking* and many articles on banking.

The Integrity of the Federal Reserve System

By A. D. WELTON AND C. H. CRENNAN

Editors-in-Charge

THE Federal Reserve System has to do only with commercial banking.¹ Commercial banking has only to do with getting goods from producer to consumer. It operates on the assumption, ordinarily valid, that the sale of goods to the consumer produces funds to discharge whatever obligation has been created.

Investment banking, on the other hand, operates on the assumption that the capital loaned will be repaid out of the earnings its use permits in a specified number of years.

The essence of commercial banking is liquidity of the credit on which it functions. Its credit instruments must be of short maturity. The banks which invest in them undertake to pay on demand and they must have a constant inflow of funds or a means of quickly realizing on their credit instruments. It is necessary, therefore, that the goods against which such credit is granted should be always in process of sale.

Primarily and fundamentally the Reserve System was designed to provide for the credit instruments of commerce an instant sale. It was an attempt to organize not a new lot of banks, but a new banking machine supported by the resources of all its member banks.²

The Reserve System is then an organization of banks. The Reserve Banks draw their capital from banks.

¹ Permission to national banks to receive savings deposits and to exercise trust company powers does not affect the commercial nature of the Reserve System.

² Cf. Article by Professor Kemmerer in this volume.

Banks give them all the business they have, except the government, which is their only other customer. The country has then a banking system composed of banks of various kinds, some chartered by the nation and some by the states, brought into a coöperating organization with the Federal Reserve Banks as the operating mechanism.

Over this operating mechanism of the coöperating organization of banks, the government exercises a general supervision. There are many people who thought the supervising authority should be different, but it isn't and it doesn't matter so long as it is competent and impartial.

The purpose of the Federal Reserve System was to provide for business just what has been provided. There was no purpose and no intention to establish government banks, and none was established. There was no purpose to help or favor operating banks because they needed neither help nor favors. There was a purpose and intention to put the operating, commercial banks in a better position to discharge their duties to business so that business might go on under any and all circumstances, if this could be achieved through an economic use of credit and competent credit machinery.

In relation to business, therefore, the Federal Reserve System is more than a banking system. It is a code for business behavior. It is more than a machine for expanding and contracting credit and currency. It is a means for the orderly and systematic functioning of business credit and,

through reapportionment of this credit, for the stabilization of business.

No comprehensive grasp of the System can be had if, among its attributes, is included that of a remedy for all business and financial ills. It is not. It can never save the day for the insolvent. It is man-made and man-operated. It has and must have limitations. It must not be concluded because it financed the War, that it can go on indefinitely producing rabbits of credit and currency out of an empty hat. It didn't do that even in war. It did give life and credit form to latent and dormant resources. It did make the unliquid at least temporarily liquid. But war demands such performances.

It might have been better if the Reserve System had been called on to do less, and more had been done through other means, the Treasury, for instance. It would have been as well for the country and better for the System. Had this course been followed the Reserve Banks would have avoided much harsh criticism for displaying their limitations, once war pressure was removed. Many suggestions for changing the System would never have been made. It would not have been expected to bring to realization so many fatuous dreams.

As an operating banking mechanism the System need not, however, be taken for what it is. Changes in the machinery may be made if the fundamental structure is not impaired. Any banking system is a thing of growth. If, in its final form, it shows that wisdom has been gained from experience and skill from practice, it begins to approximate general needs. The Reserve System is an evolution out of more than a century of hard and bitter, experience made harder and more bitter by experiments. Its mechanism is, therefore, of moment only as it per-

mits the application of principles of demonstrated soundness. Its fundamentals are vital, not only because they attest that old fallacies have been dismissed, but also because they have been proved under the test of practice.

Probably, in any organization applying rules of conduct, there is a degree of fluidity. Some measure of change is always possible even when not always desirable. But change for the sake of change is not progress or improvement. On the other hand, there is advantage in holding to fixed practice. It is not difficult to test the quality of any amendment proposed to the Federal Reserve Act. It is necessary only to get the fundamental purposes in mind. Anything out of accord with them may instantly be dismissed.

But a great banking system cannot grow and develop out of itself. Dealing with such an intangible as credit and so nebulous a quality as confidence, the attitude of the public must be reckoned with. So susceptible are banks generally to public opinion that the banker subconsciously, almost, considers that as a factor to be used in all his calculations. In any event the public is a factor in the future development of the Reserve System, as Paul M. Warburg points out elsewhere in this volume. If the public is dismissed because even a meager popular understanding of the intricacies of banking is beyond hope, the business man, from whom more may be expected, stands forth as a grim spectre.

The public, most assuredly, feels and does not analyze. The business man may be controlled by emotion rather than reason. The more certain the operations of the Reserve Banks, therefore, the better they will come to be understood. Eventually, although it may be only a hope, the public will

come to understand up to the point of having confidence.

Thus the public is an important factor in the development of the Federal Reserve System. There must be a growth without the banks as well as within them. The public mind must become attuned to them.

For the people the Reserve System is a precious thing. If it is to fulfill its work and its mission, they must view it with confidence. Its integrity is to be guarded with as much jealousy as the Constitution itself. The jealousy must be inculcated into the popular mind. The attainment of such a state is taken to be desirable. If it is, the prospect of its realization will be in constant jeopardy unless members of Congress can be induced to abandon the idea that the Reserve Act is subject to tinkering at the behest of any amateur banker.

KNOWLEDGE OF BANKING HISTORY HELPS TO PUBLIC UNDERSTANDING

Under the interpretation of the Federal Reserve System given above, its growth, improvement and development to the maximum of satisfaction and efficiency can be attained only if its fundamental purposes are understood. The forces without the System must contribute a share in this growth and development. These outside forces are the business men and the public generally.

There can be no adequate understanding or appreciation of the System unless there is a general familiarity with what preceded it. To this end the first section of this volume is given over to an historical review. The first article sketches the history of banking from 1791, when the First Bank of the United States was organized, down through the panic of 1907.³

Even cursory reading of these events

³ By B. H. Beckhart.

will indicate the influence that old experiments and controversies exerted on the makers of the Reserve Act and the form and content of the law. In the struggle over note issues and redemption of bank notes will be found the causes for the demand that Federal Reserve notes be made "obligations of the United States." The workings of the national bank system will explain the development of reserve banking and the need for elasticity of both credit and currency, and so on.

In his article on "The Studies of the National Monetary Commission," Professor Weston illuminates the defects of the old banking system and shows how they were studied in relation to other systems and the probable needs of modern business for adequate banking service.

These needs found expression in the organization of the National Citizens' League for the Promotion of a Sound Banking System. The story of the organization of that movement is told by Mr. Harry A. Wheeler, who participated in it and who was also one of the organizers and the first President of the Chamber of Commerce of the United States.

Through the workings of the National Citizens' League, later supplemented by work of the Chamber of Commerce, the business men and the business organizations of the country were bound together. A community of thought on banking methods and services was thus brought about and translated into definite purpose.

To get this result—a first step toward legislation—demanded an elaborate educational campaign. Success in this venture was made more difficult because of the many schemes for monetary and banking reform conceived and promoted by modern John Laws. These enthusiasts, often seeing

in banking the means of attaining universal happiness, found no other weapon than legislative compulsion or government operation of banks. Dismissing the exploded theories, it need only be said that the guaranty of bank deposits was the measure of reform being pressed with vigor at that time. It had many advocates in Congress. However, the educational campaign was persistently prosecuted and was successful to the extent necessary in bringing attention to sound economics in banking reform as against the pursuit of emotional rainbows.

In his article on "The Federal Reserve Act in Congress," Dr. H. Parker Willis gives an intimate recital of facts, many of which have not previously been published. As expert for the House Committee on Banking and Currency, Dr. Willis was familiar with every step in the development of the bill before it was in the Committee for discussion and subsequently. The political factor is here disclosed as it came forward to influence what was an economic product. The degree of interest of the Administration in the measure, the pressure placed on Congress and the suggestions from the Treasury and other departments are made clear.

In this phase of the development, distinction must be made between the administrative and the economic provisions. Control of the System was always a subject of contention. The decentralizing of credit and curbing of the supposed power of Wall Street and the "Money Trust" were always matters of political concern. The tendency toward government control of the operating banks themselves had to be guarded against. Over the economic provisions, there was less trouble. There was no disagreement of moment in this respect, but provisions strictly economic were often

under pressure because of their relation to control in execution. Thus elasticity of note issue was confused with distribution of credit and would have been sacrificed or impaired if help for the farmer could have been secured thereby. One illustration of the confusion of economics and politics will suffice.

In an economic sense, rediscounting for profit was at that time unthinkable. The maturity of paper offered for rediscount at the proposed banks was of incidental importance. Commercial banks could not consider paper of anything but short maturity and it was equally clear that paper for rediscount would not be offered to the Reserve Bank by the discounting bank on the day of discount. But dozens of congressmen could not or would not understand that the farmer could have no direct dealing with the Reserve Bank. Hours of discussion in the Senate were given over to the maturity of agricultural paper. Senators who saw in the Reserve Act only a new way of settling the farmer's eternal credit problem, would have willingly destroyed the commercial character of the Reserve Banks on the chance of settling that question. The time agricultural paper for rediscount may run was increased to ninety days. This maturity would have been of no importance if the rediscount rates had ever been scientifically adjusted and is of little importance anyway. In August, 1921, the average maturity of rediscounted paper was 15.76 days. In September it was 17.22 days. In the Minneapolis Bank it was 42.06 days and in Boston 7.74 days. If maturities had not been mentioned in the Act, the result would probably have been the same.

The House bill as recommended by Chairman Glass' Committee was the real bill, as Dr. Willis points out.

Senator Owen had a different bill which he was induced, eventually, to abandon. There was also a bill fathered by the Treasury providing for a central government bank with the Treasury's gold as the capital. The fact that the gold belonged to the holders of the certificates issued against it, was thought to be insignificant. The advocates of this plan floundered about in it for some time until the President himself summarily suppressed it.

Dr. Willis shows clearly that the Glass bill was the Administration's bill. After all other proposals had been discussed, and mechanical changes were made—notably that providing for retirement of the bond-secured currency—the Act as passed was substantially the bill as it came from the House Committee.

The true purposes of the Federal Reserve Act will be found in the discussions and reports of the Banking and Currency Committee of the House, of which Carter Glass was chairman.

The beginning of the European War brought an almost instant business dislocation. Fear of panic was allayed by the summary closing of the stock exchanges. A currency famine was supposed to be imminent. The members of the Federal Reserve Board had been appointed about this time—August 9, 1914—but the time for opening the new Reserve Banks could not even be predicted.

In September the dormant National Currency Associations were awakened. These had been formed in many districts under the provisions of the Aldrich-Vreeland Act, passed after the panic of 1907. Emergency currency was issued to these Associations and met whatever stress there was, as told in Mr. Dodge's article.⁴

⁴“The Aldrich-Vreeland Emergency Currency.”

Aside from the useful service of providing currency and thereby sustaining confidence, the operation of this law was effective to prove its incapacity to meet anything more than a passing strain. There were many men—bankers included—who thought that the demand for banking reform would be completely met by this law or any law which would permit the turning of bank assets into currency. It was a bit of good fortune that there was a demonstration to show that banking efficiency was a reserve and not a currency problem. It eliminated forever from consideration a half-hearted remedy.

EARLY PROBLEMS AND OPERATIONS OF THE FEDERAL RESERVE BOARD AND BANKS

The Federal Reserve Board and the Banks were organized without much difficulty. The Organization Committee toured the country to gather information and hear the arguments of the various civic and banking committees selected to advance the claims of the many cities which thought themselves entitled to selection as the homes of the Reserve Banks. There were many contenders for these honors and there was some bitterness. Fixing the boundary lines of the districts also caused contention. Political “pull” was exerted to influence the committee from without and political prejudice was working within. But these matters were of minor importance compared to the Organization Committee's interpretation of the provision as to the number of Banks. They decided that twelve should be immediately established, and not eight, to be increased to twelve later if experience showed twelve to be necessary.

Undoubtedly the Committee felt the pressure keenly. Southern cities were very ambitious and very influential. But, so far as politics was concerned,

its full force was not manifested until the matter of organizing the Reserve districts came before the Reserve Board for review in 1915.

The Federal Reserve Act (Section 2) says, "The determination of said organization committee shall not be subject to review except by the Federal Reserve Board when organized" and "the districts thus created may be adjusted and new districts may from time to time be created by the Federal Reserve Board, not to exceed twelve in all."

The Board seemed to think that provision mandatory. It was, therefore, in the performance of what they considered a duty that they turned to a study of district boundaries and the location of Reserve Banks. In several instances changes in boundaries were made, but when a discussion of the possible strengthening of the System by combining some of the districts (without closing any offices already established) was begun, political power began immediately to work.

The then Governor of the Board and the two ex-officio members combined to prevent any change of the kind under discussion. The ex-officio members—the Secretary of the Treasury and Comptroller of the Currency whose action as members of the Organization Committee was to be reviewed—and the Governor were a minority of the Reserve Board. But, over the signature of the Governor and without the authority or knowledge of the majority of the Board, they asked the President to transmit to the Attorney-General a request for an opinion defining the Reserve Board's powers of review.

The opinion was turned out over Saturday and Sunday, which may be considered unusual dispatch. When the Board met again it was faced with the Administrations' interpretation of the law and the interpretation was that

the Board had no power to review the determination of the Organization Committee in a manner that might affect the existence of any of the twelve Reserve Banks already established.

The point to be made is that the integrity of the Reserve System is of indifferent consequence in the face of political exigency. Perhaps just such a thing will not happen again but this is the second instance in which appeal was made to the Attorney-General to give legal support to a plan politically desired.

The fear of future political assaults on the integrity of the Reserve System is so well founded in experience that Mr. Warburg is wholly justified in his conclusion that the people must develop a jealous regard for their banking machinery if they wish it to endure. Mr. Warburg, in his article, is apparently less concerned with the past than with the future. Recent experiences indicate the correctness of his views and the basis for his fear of political encroachment. He worked so faithfully and effectively to gain and hold for the Reserve Banks what they have that anything he says has particular and peculiar significance.

Once the Reserve Board was in action, there was the usual clamor for jobs from eager politicians but it was mostly clamor. The positions to be filled were hedged about by qualifications that could not be met by those without banking experience. The position of Reserve agent attracted the avid attention of the politically faithful. The duties of this position were not clearly defined. At first sight it seemed to offer attractions of ease and afford a quiet resting place for an agreeable ex-something classed in political slang as a "lame-duck." There were, of course, hundreds of applications for these places and every applicant was supported by heavy political indorsements.

However, the Reserve Board itself was wisely chosen. Efforts to diversify its membership both in equipment and representative character were successful. The Board, charged with the duty of organizing a new banking system at the time the world was beginning the greatest of wars, did not view the task lightly or politically. Bankers were drafted into the service of the Reserve Banks and accepted, often at large sacrifice. Bankers and business men chosen to the directorates of the Reserve Banks were as much in earnest as the Reserve Board. The political pressure was strong enough to bring a lapse here and there, but the general character and business complexion of the official staffs stood up under close inspection. This early proceeding is to be judged only in the light of results obtained and not by the efforts that were made to impose upon Board or Banks the wishes of those who were politically moved. It is a fair inference that, so far as jobs were concerned, political officialdom passed recommendations along in the serene confidence that the banking minds would accept the responsibility of the refusal to concur.

In any event the Banks came into existence as banks and were opened on November 16, 1914. Having buildings, equipment, officers and staffs, they were naturally curious as to what they might do. Could they advertise and go out after business? No provision had been made for such a course. They would get business when their member banks were hard pressed for funds. Humiliation attached to rediscounting. It was regarded as a sign of weakness. Moreover, while the Reserve Banks were open for business, reserve funds were to be turned over to them in installments. The banking system was otherwise running along as before.

There was, however, much to do.

In nearly every district leading banks rediscounted paper for the sake of example.⁵ The Reserve Board had to study the law, which settled all difficult problems by saying "under such regulations as the Board may prescribe." It must also be remembered that Aldrich-Vreeland emergency currency was in circulation and was to be retired or supplanted by Federal Reserve notes.

Rules were to be made, precedents set and the gathering of traditions begun. Eligible paper had to be defined; at least, a beginning had to be made.⁶ Not only banking customs but business habits would have to be remolded and remodelled, if the Reserve Banks were to have anything on which to function. Acceptances were authorized by the Act. They were new to the banking world. The lessons of war were beginning to say that gold would have to be gathered and impounded.⁷ The state chartered banks were hostile or, at best, only neutral. It grew rapidly plainer that they would have to be wooed and won. The law made it mandatory that the clearing and collection of checks and drafts be undertaken. A first step in this direction threw the country banks that were members of the System into spasms of anger and fear. It made the state banks glad that they were beyond such meddling.

The Gold Settlement Fund came as an ingenious means to economy and convenience for member banks. It was a first notable step in what the Reserve Banks could do—something that would be helpful, speedy and cheap. The plan was worked out by the Reserve Board

⁵ "Early Functioning of the Federal Reserve System."

⁶ "Eligibility for Discount" by Charles L. Powell.

⁷ See "Preparation for War and the Liberty Loans" by J. H. Case.

in conjunction with experts called from member banks. It was simple and easy and established itself so quickly in favor that it was almost as quickly forgotten as a service. It has always worked perfectly and stands now as a real achievement.⁸ It is a service no less to business than to banks.

The story of the winning of the state banks and of par collections is told in the paper by Mr. Pierre Jay, Chairman of the Board of the Federal Reserve Bank of New York. Mr. Jay was called to that position from the presidency of a state bank. It is needless to say that his sympathetic understanding of state bank problems, his patience and persistence found opportunity for display in dealing with those institutions. But the national banks within the System were more rebellious than the state banks without it. They would not be mollified and they were impervious to argument. They nearly disrupted the American Bankers Association. They forced Congress to consider amendment of the Act and missed winning completely by a narrow margin. They went to law about it. It is possible still to make exchange charges and they are made, but the "par collection" competition is too strong. In the face of all the obstacles the Reserve Banks are now the great instruments for check collections and they will have competition in this field only from banks of great reach, capable of maintaining the necessary connections and facilities.

However, the War, not the wooing, brought the state banks into the System—not all of them, of course, but a number in point of resources quite great enough to give the Reserve System the necessary universality—if there is any such thing as a degree.

⁸ "The Evolution of the Gold Settlement Fund" by George J. Seay.

The development of the relations of Reserve Banks to their members and with one another immediately became a serious problem once the Reserve Banks were in operation. How this was done and what was and is being done, is told by Mr. Gidney. The Reserve Banks can never supplant "correspondent" banks. There are too many services the latter render, too many personal and long-standing connections, but the Reserve Banks have made great progress and have brought their depositors to a realization that they are customers and will be treated as such. The development of close relationships among the Reserve Banks and their officials has also been as important as it is interesting. Unity demanded it, but systematic effort was essential to its achievement.

There will always be non-member banks because banking is often specialized and men have notions of independence. The mutual savings banks of the East are not eligible to membership. They have no capital stock. The laws have been changed in one or two states to permit them to invest a part of their funds in "commercial paper" and acceptances, but their investments are not supposed to be liquid, and they are far removed from commercial banking.

Probably there will always be private bankers with freedom to operate within that borderland where investment and commercial banking meet and divide, or on both sides of it. But the Reserve System, as now formed of Reserve Banks, national banks, state banks and foreign trade banks, is sufficiently inclusive and strong to permit the statement that it is as nearly universal as necessary. There is nothing on the horizon, or nearer, to indicate that it will diminish instead of grow.

Amendments to the Reserve Act have been fairly numerous, but generally they have been made to meet conditions that could not be foreseen or to make operating conditions easier or simpler. It is good fortune as well as good judgment that there has yet been no success in perverting the provisions of the Act. Congress has so far yielded to the guidance of the Reserve Board and, when there was threat of unsound doctrine, Carter Glass, as representative and senator, has been found on guard. The first thrust at the integrity of the System by the War Finance Corporation has been parried. Even the admission that that Corporation is now doing commendable work and meeting an urgent need, does not justify dismissal of the hope that its life and the emergency which revived it, will both end as scheduled on July 1, 1922.

Amendments to the Act are discussed in Mr. Walter S. Logan's paper where their bearing and trend may be learned. In this connection it is not amiss to say that bankers have contributed loyally to the effectiveness of the Reserve Banks' operations. If they fought lustily, through one or two groups, against par collections, they coöperated zealously by surrendering their gold to the Reserve Banks. Without the War the impounding of gold would have been exceedingly difficult; as it was, it required effort. But good teaching and good leadership carried through, in the closing months of 1917, a plan whose success stood as a milestone in the progress of the Reserve System.

Branches of the Federal Reserve Banks were established and opened in the interest of service to business. The jealousies engendered by the selection of Reserve Bank cities and the making of reserve districts were wiped out in this way, but the branch

banks have proved the necessity for their existence. Governor Fancher, of the Cleveland Reserve Bank tells the story.⁹ There are, however, variations in the operation of branches. In the far West the geographical extent of the San Francisco district demanded a larger independence in management for the branches than in the East, but telegraphic communication is always close.

The assumption of the functions of the Independent Treasury—see Professor Wildman's article—came belatedly. It was probably as well that it was deferred by politics and war. When it did come, the banks were experienced and ready. So far as the public was aware the subtreasuries slipped their moorings and drifted into the sea of oblivion with no one's knowing or caring.

EXPANSION, CONTRACTION AND THE DISCOUNT RATE—VITAL PROBLEMS

It was thought advisable by the editors of this volume to have as wide a discussion as possible of "Expansion and Contraction." Involved with this question is the influence of the rediscount rate on business activity and, therefore, the relation of the rediscount rate to business and to the expansion and contraction of money and credit.

The Reserve Board is charged with many duties. The Reserve Banks function in many ways. But no question goes more to the vitals of the entire scheme than the adjustment of the discount rate of the Reserve Banks. Whatever else they may do and however successful they may be in the discharge of collateral and subsidiary duties, around the discount rate and its making cluster the factors that bear

⁹ "The Establishment and Scope of Branches of Federal Reserve Banks."

directly on the success or failure of the Reserve Banks as aids to commercial business or to the member banks which act in response to business and react to its advantage.

The relation of the Reserve Banks' discount rate to and influence on business has by no means been determined. The factors to be considered in determining the rate are pretty well settled, but their relation to one another and the relative importance of each is still an open question. In seven years of operation the determining of the discount rate has been influenced by extraneous or distracting conditions. At first when the Banks were new, it was of no importance. When war pressed, other factors received scant attention. After the Armistice the belief that the unexampled prosperity would endure, supported the Treasury's needs for more financing. When, finally, something had to be done to avert a crash, it was found that no genuine experience in adjusting the discount rate to influence business had been had. The first increase of the rate to "slow up" business came as an arbitrary decree based on a conception drawn from British experience. That was in January, 1920. Business did not slow up. It went on, undoubtedly despite the higher rate, despite the warning, but, because of what? Possibly because of its own momentum. Expansion increased. It was many gloomy months after the rate was first increased before the peak of either credit or currency expansion was reached. In the meantime business generally declined to believe that the end of war prosperity had come or that the revival and continuation of it was not around the corner. The Reserve Board and the rates of the Reserve Banks were mentioned only to be damned. All kinds of allegations,

charges, proposals and remedies were made. In the end the rate was popularly charged with undoing business—for lack of a better reason.

All this was a new experience with the discount rate. It was a valuable experience because it was a first lesson in the time relationship between business activity and the Reserve Bank's discount rate which, to whatever extent it affects business activity, can do it only through the influence it exerts on the rates charged by member banks.

In the articles on these questions, a wide range of experience, supplemented by opinion and study, was sought. Bankers, Reserve Bank officials, merchants, economists were all invited to express themselves. Governor Harding, of the Reserve Board, has stated the problem as it is before the Board. Mr. John H. Rich, Chairman of the Board of the Minneapolis Reserve Bank, has furthered the discussion with views and experiences in that extensive and interesting Reserve district. Dr. A. C. Miller of the Reserve Board, has brought to bear on it a mind singularly free from prejudice and admirably equipped to ferret out and interpret facts. Mr. John V. Farwell, from the merchant's interested and detached position, gives helpful suggestions and clear exposition. Mr. J. B. Forgan, dean of bankers, and tried in experience by long service on the Federal Advisory Council, and Mr. George M. Reynolds, from a terraced height of banking leadership fairly won, make contributions which are supplemented by those of Professor E. M. Patterson of the University of Pennsylvania and Dean Chester A. Phillips, of the University of Iowa, theorists in the field of economics but with practical bents and adept in the use of scientific method.

Needless to say, these men are not entirely in agreement. But close reading of their contributions will disclose

that they are far from hopelessly apart. Any divergence of statement is not over what the discount policy has been, but rather in emphasis as to what it should be in the future.

The problem of the time relationship between the rediscount rate and business activity seems vital in the discussion. Of the efficacy of the rediscount rate to influence business there is little room for question. Recent experience, however, indicates a considerable lapse between the time of fixing the rate and the time when business feels and responds to it. On January 21, 1920, the first increase in discount rate to six per cent was made. This rate was maintained until the following June when the rate for Chicago and New York was increased to seven per cent. This rate was maintained for a year. In June, 1921, the lowering began.

The point made by Mr. Reynolds is that business is not immediately affected by the rates charged by commercial banks. The rediscount rate can affect business activity only through its effect on the rates of commercial banks. But banking, as a result rather than a cause of business activity, can react only after business has made commitments which it is bound to carry through if it can. If, under the present relationship between the rediscount rate and business activity, the rate is to be adjusted effectively, adjustment must be made in anticipation of a business activity which may need restraint or of an inactivity which may need stimulation. Such an adjustment might be precarious and it would likely be uncertain. It is venturesome to say that the rates charged for loans by member banks would be a better guide in seeking a basis for the rediscount rate, for those rates have variations, as do the rates charged for standard "commercial paper."

The condition outlined shows the strength of the position of those who say the rediscount rate should always be higher than, say, the rate for standard commercial paper charged by member banks. However, there are strong arguments why the rediscount rate should sometimes be lower. At present the lower rate is giving many hard pressed banks in the farming sections a needed breathing spell. A lower rate's influence in stimulating business may also be problematical unless the member banks adjust their rates to it as quickly as possible and with considerable speed in any event.

It is not that these statements create a dilemma but they seem to justify no other conclusion than that further experience in influencing the rates of member banks, if not further experiment, is necessary before it may be said that wisdom is justified of her children.

IMPORTANCE OF THE "OPEN MARKET"

If operation of the Federal Reserve Banks, under stable conditions of business, is to be seasonal and cyclical, as many of the contributors to this volume seem to believe, the further development of open-market operations will be in order. It so happens that the Reserve Banks, early in their careers, found war a wonderful accelerator. War made them busy and prosperous. Henceforth they will operate under changed conditions. Not that there will not be continuous business for the Reserve Banks, but they will not be carrying peak loads twelve months in the year. Their operations in the open market will be more important under the new conditions than in the past. In this field they may find it possible to exert an influence which will make for the stabilization of money rates.

Mr. Agger tells of the development and position of the open market. From what has been achieved we may get an idea that here is a field for cultivation, with success reacting to demonstrate another and large service the Reserve Banks may render business. The law made provision for such conduct by the Reserve Banks and its importance must be kept in mind.

MISCONCEPTIONS OF THE SYSTEM

Under the stress of financial difficulties incident to war and its aftermath the Reserve Banks came in for a full measure of criticism. It was to be expected, and it is not surprising, that a portion of the criticism was hostile as well as adverse. Professor Patterson, in his discussion of contraction and expansion, gives a very clear elucidation of Reserve Bank operations in their relation to government financing, foreign business and conditions and commercial banking. In these operations will be found such basis as exists for real criticism. The article might well be read with that also in mind.

In his review of the "Popular and Unpopular Activities of the Federal Reserve Board and the Federal Reserve Banks," Dr. Scott goes more particularly into these criticisms, the reasons for them and the shallowness of most of them, while Governor McDougal of the Reserve Bank of Chicago, gives a striking illustration of the lean foundation on which rest the allegations of discrimination against the agricultural districts.

It is not enough to state what the Federal Reserve System is designed to do, if the fundamentals of that System are to be understood. Current misconceptions must be cleared away. The prevalence of erroneous ideas compels such procedure.

A wide-spread notion prevails, even

among bankers, that the Federal Reserve Banks are government banks. They are bankers' banks. This fact is written into the Federal Reserve Act.¹⁰

It is implied in the provisions of that instrument.¹¹ It is not only recognized by economists,¹² but also indorsed by operating officers of Reserve Banks.¹³ No Federal Reserve Bank stock is held by the Federal government. The government possesses its regulatory power because the System is freighted with a public interest. The government has an interest in Reserve Bank profits only through a franchise tax. The Federal Reserve Banks are subject to taxation like other private corporations. To be sure, a minority of the directors of Reserve Banks are appointed by the Federal Reserve Board and members of that Board are government appointees exercising supervisory powers in the public interest. Moreover, Federal Reserve Banks do act as fiscal agents, and in other ways, for the government's convenience. Nevertheless, Federal Reserve Banks are not government banks. They are bankers' banks designed to aid business by facilitating commercial transactions. The fact that the Reserve Banks are not government banks destroys the ground work for assumptions: (1) That the System can produce general "prosperity," and (2) that it should be dominated by government.

Under the stimulation of war the facilities of the Reserve Act for expansion became an engine of inflation. They cannot be made an engine of "pros-

¹⁰ See the Act and Professor Kemmerer's paper in this volume.

¹¹ Cf. "The Reserve Act in its Implicit Meaning."

¹² See Professor Phillips' article, for example.

¹³ Cf. "Relations of Reserve Banks to Member Banks and Inter-Relations of Federal Reserve Banks."

perity." Neither deft nor awkward political manipulation can turn the Reserve System from its strictly economic purpose. It was not designed to salvage insolvents. It cannot create credit out of nothing. While commercial banks can control the flow of commercial credit and thus affect the currents of the productive processes, business creates that credit which banks, even the Reserve Banks, apportion. Business impels; banking controls the drives,—after a time. If there *must* be a causal relationship between business and banking, business causes banking. There is actually a functional relationship. Business gives rise to banking and banking reacts on business. Neither commercial banks nor Reserve Banks can create credit and thus create "prosperity."

One of the facts that doubtless has obscured thinking about the fundamental play of commercial banking is this one, that the Reserve Banks have handled government issues, rediscounted paper secured by government obligations and otherwise performed war functions for the Federal government. They have been functioning, in no small measure, on *other* than commercial credits. This was not their original purpose. Government promises to pay should not be the chief grist taken to the Reserve Bank mill. But as a result of war operations, the assumption that Reserve Banks can "manufacture" credit out of nothing seems to find justification with those who have not seen the underlying sources of the promises to pay on which the Reserve Banks have been functioning. Business, not banking, creates what is called "prosperity."

An instance of government domination of the Federal Reserve System can be found in the control of the rediscount rates by the rate on govern-

ment bonds.¹⁴ This control was no doubt bred of war's necessities. The War is over. But no end has come to political pressure on the Reserve System. That pressure seems now to come through Congress, or a section thereof, rather than through the Administration. It is suggestive, if not legally accurate, to say that the Federal Reserve Board can exercise those powers expressly granted or necessarily and fairly resulting therefrom, while the Reserve Banks hold residual powers. "Less government in business" can find a starting point in the Reserve System. Government supervision is very different from political manipulation. These bankers' banks should be unhampered by politics.

A current misconception that is giving way is the notion of dead-level uniformity of policy and practice among the Reserve Banks. The Federal Reserve System meets the necessities of American geography and history in providing regional banks with a centralized supervision. This fact is attested by many of the contributors to this volume.¹⁵ Presumably each Reserve Bank will adapt its policy and practice to the hard and particular facts of the business situation in its district.¹⁶ Where differences in procedure are necessary, they must and will be allowed by the Federal Reserve Board, just as differentials in discount rates are "permitted" between districts that are dissimilar. The Reserve Board will play its part of leadership by functioning on *common* matters of policy and practice without constraining the directors of the various banks in matters of

¹⁴ See Governor Harding's statement in the article, "Rediscount Rates, Bank Rates and Business Activity."

¹⁵ See, for instance, the articles by B. H. Beckhart and John H. Rich.

¹⁶ See the paper by H. Parker Willis in this volume.

justifiable difference. Thus will the System best perform its service in facilitating commerce. Arbitrary control, political interference and dead-level uniformity will destroy, not maintain, the integrity of the Federal Reserve System.

THE AVOIDANCE OF INVESTMENT OPERATIONS BY RESERVE BANKS

Investment banking should have no place in the operations of Federal Reserve Banks. Their reason for being is to aid commercial banking. Investment operations can be avoided by confining the paper eligible for discount at the Reserve Banks to commercial paper.¹⁷

Should the Federal Reserve Banks perform such agricultural credit functions as are now being developed by the War Finance Corporation and should they be "adapted" to such functions? The answer to this question will not only emphasize the distinction between commercial and investment banking—in what may be urged as a border-line case—but will also illustrate the need of confining eligible paper to that which evidences a movement of goods from producer to consumer and is self-liquidating.

The original purpose of the War Finance Corporation is of no present moment. The essential purpose of Section 24 of the War Finance Corporation Act, under which the Corporation is now operating, is to give bankers and farmers time in which to pay their obligations. Banks in various agricultural communities have made loans for "agricultural purposes" which cannot be repaid at maturity out of the

proceeds of this year's crop. Some of these banks are themselves having difficulty in meeting their bills payable. This situation is too well known to need elaboration. The War Finance Corporation Act expressly permits banks with "frozen" agricultural credits to apply for advances from the Corporation for six months or a year, with a renewal privilege which may give the obligation a total life of three years. By getting time in which to retire its bills payable, the bank is in a position to give farmer borrowers time in which to make a new crop, or two if necessary, and thus clean up their obligations. The Bank's obligation must be secured by collateral which will insure ultimate payment, but time is given for payment. In short, the Corporation is functioning in the way of carrying the burden of agricultural loans that are slow but should ultimately be paid.

To the extent that the Corporation gets funds into the agricultural sections where frozen agricultural credits still prevail, the operations of the Corporation will no doubt be helpful to banks in those districts and indirectly to the farmer borrowers and the country in general. Whether Section 24 of the War Finance Corporation Act is a sound politico-economic measure need not now be debated. It is a fact. Bankers and economists have few illusions as to the probable extent or nature of its operations, but about one point there can be no doubt, namely, that this giving of time to bankers and indirectly to farmers puts the operations of the Corporation in the class of investment rather than commercial banking. If the Federal Reserve Banks were to carry loans for three years, they would be doing an investment banking business. It is the purpose of the Federal Reserve Act to deal in self-liquidating paper. The Reserve Act might conceivably be amended to

¹⁷ The term *commercial paper*, unless in quotes in this article, means commercial paper as defined in the Federal Reserve Act and rulings of the Federal Reserve Board, and expressly includes agricultural paper. In the case of agricultural paper, however, the maturity of the paper is the essential point in giving it eligibility.

permit the Reserve Banks to perform such long time banking operations as are now entrusted to the War Finance Corporation, but such amendment would be a blow to the integrity of the Federal Reserve System as a commercial banking mechanism.

Should the War Finance Corporation so extend its operations in granting agricultural credits that its capital is exhausted, the Corporation may issue debentures to secure additional funds. The Corporation is empowered by the Act to have advances to banks outstanding at any one time to the amount of a billion dollars. The capital stock of the Corporation, which is owned by the Federal government, is five hundred million dollars. Should the Corporation issue its debentures, these promises to pay must be considered investment paper. They may be used to secure rediscounts with the Federal Reserve Banks. Should they be so used, they will be in the same position as government obligations which are used to secure rediscounts. The propriety of making loans and issuing Federal Reserve notes on the basis of paper "collateraled" by investment securities is a question that may well be raised in considering the integrity of the Reserve System as a commercial banking institution.

Government bonds and debentures of the War Finance Corporation are promises to pay. They are not in themselves evidences of a movement of goods from producer to consumer. They are not self-liquidating as is commercial paper. The legal permission to secure rediscounts with investment paper is a deviation from the original purpose of the Federal Reserve Act. It is true that the Reserve Act makes express provision for rediscounts secured by government obligations.¹⁸ But it is also true that had the framers

of the Federal Reserve Act anticipated the World War, the proviso clause in Section 13 of the Reserve Act, which permits rediscounts to be secured by government obligations, would probably not have been passed.¹⁹ And certainly there was sufficient experience with this proviso clause of Section 13, as to its potency for inflation, to have warned against the amendment of the Reserve Act so as to permit the War Finance Corporation's debentures to be used to secure rediscounts. Section 24 of the War Finance Corporation Act was not approved until August 24, 1921.

While government obligations are so extensively held by individuals and business concerns, it is perhaps impracticable to amend Section 13 of the Federal Reserve Act so as to prevent the use of government obligations to secure rediscounts and the issuance of Federal Reserve notes on the security of those obligations. Until the war bonds of the government find a final resting place with investors—which may mean until refunding plans are put into operation—it would probably be impracticable to prevent a member bank's offering the note of a business man for rediscount which is secured by government bonds. Until that time it may be impossible to have Federal Reserve notes issued only in response to commercial needs, evidenced by the offering of commercial paper for rediscount. In the perfecting of the Reserve Act, Section 13 might well be changed, on the chance of a recurrence of very large government demands. There will be no valid excuse for permitting the rediscounting of notes secured by the debentures of the War Finance Corporation should that Corporation function extensively enough to issue its debentures. Of course, it might be

¹⁹ See paper entitled, "The Reserve Act in its Implicit Meaning."

¹⁸ See Section 13 of the Federal Reserve Act.

difficult to sell such debentures without this feature.

The avoidance of investment operations by Reserve Banks will be difficult so long as Congress, or any group of congressmen, can force amendment of the Federal Reserve Act to take from the Federal Reserve Board its power to define eligible paper under the Act as it now stands. In the spirit of the Act the resources of the Reserve Banks are not to be used for withholding crops from the market to secure higher prices. Commercial paper involves the moving of goods to the market, not withholding therefrom in order to insert a price peg or even to secure "more orderly marketing." Measures to admit irrigation and development bonds as paper for the Reserve Banks to function on might conceivably be passed by Congress. But no matter how great the need of particular agricultural districts, or how desirable various measures of relief, it seems clear that the definition of eligible paper should be restricted to commercial paper unless there is a general and well considered intent to depart from the commercial character of the Federal Reserve System.

There may or may not be need of specialized banking machinery to take care of the long time financial requirements of farmers, due to recurrent crop failures or price slumps, as well as their need for long time funds in bringing cattle to market. But in any event that need would have to be determined on the basis of experience that is more than transitory or that arises from a world-wide emergency, caused by the distortions of war. But the fact that these needs exist is not a sufficient reason to destroy the integrity of the commercial banking system that has been established. They rather point the way to the provision of other facilities, if necessary. To destroy the line

between commercial and long-time banking, that was not easily established, is to permit just such a situation as now obtains in many country banks. They have slow assets with which to meet quick liabilities. It is as impossible to add investment banking to commercial banking and get security as it is to add apples to oranges and get peaches. And it must not be forgot that the slow obligations of farmer borrowers and agricultural banks can be traced in part to land speculation and inflated land values.

RELATION OF THE RESERVE SYSTEM TO INTERNATIONAL FINANCE

The Federal Reserve Act permitted the extension of banking operations into the foreign field. Under this authorization American banks branched out in foreign territory extensively and not always profitably. However costly the experience with foreign banking, it is probably safe to say that banks managed by those who are experienced in foreign trade and foreign banking will in the future find sufficient latitude for profitable operation under the Reserve Act.

The Federal Reserve Act was amended by the Edge law to permit an extension of foreign banking facilities through the establishment of new foreign banking corporations in which commercial banks were expressly permitted to own stock. This fact that commercial banks could hold the stock of Edge law corporations is sufficient reason for the Reserve Board's being given supervisory control. Moreover, Edge law corporations were designed to finance imports and exports, but especially to aid the movement of goods from American producers to foreign consumers. They were designed to do a foreign commercial banking business. The Edge law merely extended the provisions of the Reserve Act that had

previously permitted foreign banking. Since the banking business of Edge law corporations is largely commercial in character, the Edge law is not an attempt to graft onto the Federal Reserve System investment features that would have destroyed its integrity as a commercial banking system.

Whether Edge law corporations were or are desirable from the standpoint of practicality is really beside the point. The Reserve Act was extended by the Edge law to put the Federal Reserve System into more intimate touch with international finance. It is merely a matter of record that "rest in peace," in proper Latin phraseology, has been written over the mammoth corporation proposed to be operated under the Edge law.

Dreamer's dreams of international banks, which would restore mint pairs of exchange and otherwise work out the difficulties of international finance, can be dismissed with scant consideration. They do, however, contain a warning. The capital of one such bank was to be composed largely of the promises to pay of "solvent foreign governments." The test of solvency was prompt payment of external obligations and the taking of steps towards disarmament. Foreign bonds, even of such "solvent governments," are scarcely to be considered banking capital. It is difficult, also, to see how the operations of such a bank would rectify foreign exchange when any adjustment depends so largely on measures taken by European nations themselves—such as deflation of their currencies and balancing of their budgets—to bring the purchasing power of their moneys more nearly into alignment with the purchasing power of American money. Exchange rates today are on a purchasing power parity. However fatuous such projects, they are conceived by those holding re-

sponsible legislative positions and it is not improbable that somehow, if a law were passed to establish such an international bank, that bank would get itself tied up with the Federal Reserve System. It is against such projects that the Federal Reserve System must be safeguarded by an alert and vigilant public opinion which allows no deviation from its commercial character.

Though the condition of business in the United States is affected by the play of world-wide economic and political forces and the Federal Reserve System is affected by the condition of business, that System touches the international financial structure immediately at one point, through its control of gold. How the Federal Reserve Board impounded gold is told in Mr. Case's article. The Reserve Board's control of the gold of the United States is now complete. Certain it is, also, that the flow of gold into the United States shortly after the outbreak of the War, but particularly since September, 1920, has resulted in such redistribution of the world's stock of monetary gold as to give the United States—the Federal Reserve Board—control of some 40 per cent of that stock.

In this connection the article of Dr. Sprague may be read with profit. There is within the Reserve System, as operated, an inherent power for expansion. The manner in which gold is handled is of the greatest importance and Dr. Sprague has indicated the dangers to be guarded against in the future as well as those which have not been met effectively in the past.

PURPOSE OF THE VOLUME

The purpose of this volume is naturally to be ascertained from the reading of the various articles contributed. Books have been written on the Reserve System. Some of them have given its

purposes and some have been devoted to its operations and operating mechanism. The editors assumed, however, that heretofore no opportunity has been offered to bring together in one volume the authoritative statements from those who were directly interested in framing and formulating the Act and were, therefore, familiar with its purposes; from those who were and are actively connected with the operation of the Reserve Banks and therefore competent to interpret their conduct, and from those who directly and indirectly make use of the Banks or are keenly interested to study the progress of the System.

Thus we have in this volume of *The Annals* the Reserve System as contemplated by its framers, as operated by those in charge, and as observed by those in a position to interpret the operations in relation to the purpose. In any event these three forces were sought and have responded. The relationship between purpose and operation is set forth and the limitations as well as the scope of the System have been shown.

It is pertinent to add that sight was never lost of the fact that the Federal Reserve System is not generally understood. It is unfortunate that it is distinctly misunderstood. If this volume is of any assistance in clearing up the misunderstandings and giving a better conception of the work and the mission of the Reserve Banks, the editors will feel fully rewarded. They owe everything to the contributors who have responded so capably and generously to their requests, often, it may be said, despite of engagements and the pressing demands of their own businesses. No editors were ever more fortunate in securing coöperation from contributors.

It is only an editorial hope that the volume may meet approval. It was fairly intended to produce a useful and practical work. Whether it does or does not perform a useful service, we feel justified in appending the message for the book suggested by the governor of a Reserve Bank: "It will not be easy reading; it may not be agreeable reading, but I think it mighty important that every business man should read it."

Outline of Banking History

From the First Bank of the United States Through the Panic of 1907

By B. H. BECKHART
Columbia University

THE United States was particularly fortunate in having as its first Secretary of the Treasury a veritable genius, whose program of fiscal reform quickly placed the new republic on a sound financial basis. As an essential part of his program, Hamilton urged the establishment of a National Bank in a report to Congress, dated December 13, 1790. Since the economic significance of banks was then but crudely understood, Hamilton, in this now famous document, first indicated the numerous advantages resulting from banking in general and from a National Bank in particular, taking occasion to dispel some of the current erroneous ideas on the subject.¹ After showing that no one of the three banking institutions² then in existence could be suitably employed as a National Bank, he laid down in great detail the plan for the new institution.³ The act chartering the bank modelled upon this plan was signed by the President on February 25, 1791.⁴

¹ Hamilton's report may be found printed in full in the *American State Papers*—Finance I, pp. 67-76.

² The Bank of North America founded in 1781, the Bank of Massachusetts in 1784, and the Bank of New York in 1784.

³ Hamilton's plan closely followed the charter of the Bank of England as it existed at that time.

⁴ The act provided for a capital of \$10,000,000, of which one-fifth was to be subscribed by the government. The administration was placed in the hands of twenty-five directors elected annually by the shareholders. Branches were to be established where the directors saw fit. The circulation was not to exceed the capital. Statements of condition might be called for but not

The entire capital was subscribed within two hours on the day⁵ the subscription books were thrown open, and the Bank was ready to begin business on December 12, 1791, with Thomas Willing as president.⁶ From the very outset, the Bank proved to be a great success, in providing the country with a sound and elastic currency, in supplying the needed banking facilities, and in preventing any excess issue of state bank notes by having such state notes as were in its possession redeemed. In the performance of its fiscal functions, it transferred government funds and provided a safe depositary for them; it also helped to collect the revenues and provided the bullion needed by the mint in coinage. Further, by 1795 it had loaned the government \$6,200,000. In order to procure funds to repay the loan, the government by 1802 had sold all of its stock at a profit of \$671,860, and while a shareholder had received \$1,101,720 in dividends of 8 $\frac{3}{4}$ per cent.

On April 20, 1808, the stockholders memorialized Congress for a renewal of the charter which expired in 1811. A month later, Albert Gallatin, then Secretary of the Treasury, in a report to Congress enumerated the fiscal services of the Bank and advised that the charter be renewed with a few changes. Nevertheless, the bill to continue the charter was defeated, the

oftener than once a week by the Treasury Department.

⁵ July 4th, 1791, at Philadelphia.

⁶ Formerly, president of the Bank of North America.

opponents charging that the Bank was a "money trust" controlled by foreigners,⁷ a tool in the hands of the Federalists, and that the act chartering the bank was unconstitutional—so the First United States Bank went out of existence on March 3, 1811.⁸

FINANCIAL CHAOS, 1811-1816

It was a most unfortunate time for the country, on the verge of a war with England, to be deprived of the services of the Bank. State banks sprang up on every hand to take its place. Their number increased from 88 in 1811 to 246 in 1816 and their circulation grew from 22.7 million dollars in 1811 to 100 millions six years later.⁹ Such a rapid inflation of the currency resulted naturally in the depreciation of bank notes in terms of gold, amounting at the maximum to 23 per cent in Baltimore, and 16 per cent in Philadelphia and New York.¹⁰

The revenues of the government, consisting largely of tariff duties, were for the most part collected in this depreciated currency, while it was necessary for the nation to make large disbursements of funds in New England where specie payments had been maintained. By reason of this condition, it has been estimated that the government lost \$5,000,000 from 1814

to 1817. Further, without the assistance of the Bank, the government had difficulty in selling its bonds (even when offered below par), and was forced to borrow sums from the state banks and to issue some 37 million dollars of "Treasury notes" which "ultimately degenerated into a kind of currency."¹¹ Writing in 1831, Gallatin stated that had the Bank been rechartered, the suspension might have been prevented and the state banks would have been restrained within proper bounds.

THE SECOND BANK OF THE UNITED STATES

As early as October 14, 1814, Secretary Dallas,¹² in a report submitted to Congress, called attention to the need for a National Bank, emphasizing the fact that such a bank could restore the depreciated currency to a gold parity and that in its fiscal relations with the Treasury would be of incalculable assistance. After seven unsuccessful attempts within two years, the charter of the Second Bank, closely resembling that of the First, was passed by Congress and became law on April 10, 1816.¹³ Through an agreement with

¹¹ Willis, H. P., *American Banking*. 1918, p. 209.

¹² Alexander J. Dallas from Pennsylvania, appointed Secretary of the Treasury, October 6, 1812.

¹³ The act provided for a capital of \$35,000,000, of which the government subscribed one-fifth. There were to be twenty-five directors, twenty of whom were to be elected annually by the shareholders and five appointed by the government. Branches were to be established wherever the Bank thought necessary, managed by from seven to thirteen directors appointed by the parent bank. The circulation was not to exceed the capital. Deposits of public funds were to be made in the Bank unless the Secretary of the Treasury should otherwise direct. The Bank was required to pay the government a bonus of \$1,500,000 and to transfer public funds without charge. Weekly statements of condition might be called for and Congress was given the right to inspect the books of the Bank.

⁷ Though three-fourths of the stock was held abroad, the foreign shareholders exerted little control, as they were not allowed to vote through proxies.

⁸ By 1834 the process of liquidating the assets had been completed, the shareholders receiving in all \$434 for each \$400 share. The assets of the parent bank in Philadelphia were purchased by Stephen A. Girard, which was reopened on May 12, 1812, as "Girard's Bank."

⁹ This increase was due to two factors: (1) the suspension of specie payments everywhere during August of 1814 excepting in New England; and (2) to the withdrawal of the restraining influence of the Bank.

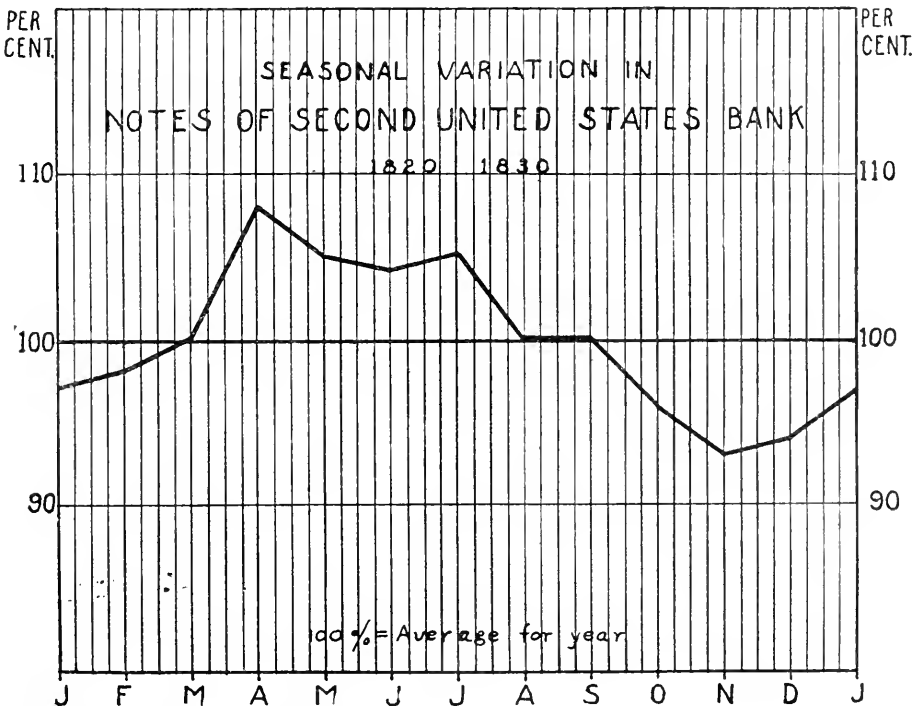
¹⁰ The specie was either driven abroad or into the New England States.

the state banks in the larger towns, the resumption of specie payments was brought about (nominally at least) by February 20, 1817, thus realizing the first purpose of the Bank. Due partly to governmental pressure and partly to a lack of banking training, the directors, at first, extended loans and rapidly increased the circulation, a policy which resulted in a heavy loss to the Bank and in the retirement of William Jones as president in January of 1819. Langdon Cheves, chosen as his successor, immediately inaugurated a policy of retrenchment and deflation. Under his management and later under that of Nicholas Biddle, the Bank became "the most powerful and best managed financial institution the country had ever seen."¹⁴ Its notes, circulating from Montreal to Mexico City, were safe and elastic. In transferring and dis-

bursing government funds, in furnishing domestic exchange, in paying the pensioners of the government, and in acting until 1833 as the sole depository of public moneys, the Bank was of great service to the whole people.

In his first message to Congress, on December 8, 1829, President Jackson expressed doubts as to the constitutionality of the Bank and the soundness of its notes. The President's hostility subsequently cooled, but when the Whig party at Baltimore in 1831 took the side of the Bank, there ensued a long and bitter struggle which ended in the defeat of the attempt to recharter it. The reasons as given by Professor Catterall for this opposition were the "widespread belief that the Bank was unconstitutional, the hostility of the states, the opposition of the state banks, the rise of democracy,

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¹⁴ Willis, H. P., *American Banking*. 1918, p. 210.

and the envy and hatred which the poor always feel for the rich."¹⁵

Upon the failure to recharter the Second Bank, the era of central banks, modelled after those existing in Europe, passed. Banking in America entered upon entirely different lines of development. In the years that followed, the government was to miss keenly the fiscal services of the Bank, and the people, no longer protected by its restraining influence on the note issues of the state banks, suffered severely from the resulting financial chaos.

THE INDEPENDENT TREASURY

From 1791 to 1811, the First Bank was utilized to a large extent as a depository of government funds. After its charter had expired the government was forced to use the services of state banks, from whom no security was required for the moneys deposited, but by whom in accordance with an agreement entered into, weekly and monthly statements of condition were to be submitted to the Secretary of the Treasury. The use of state banks as depositories proved so unsuccessful that it was provided, in the charter of the Second Bank, that it was to be the sole depository except in such places where the Bank had no branches, or when the Secretary of the Treasury deemed it unwise to employ it as such. This latter provision of the act was taken advantage of in September of 1833 by Secretary Taney, who "ordered the collectors of revenue to cease depositing in the Bank of the United States and to employ designated state banks for that purpose."¹⁶

A contract was entered into between these banks (the so-called "pet banks")

and the government, whereby they were required to give security for the funds deposited "whenever the deposits should exceed one-half the bank capital paid in,"¹⁷ or whenever the government deemed it necessary. The banks agreed to perform for the government all of the fiscal services formerly rendered by the Bank of the United States, to render weekly reports, and to submit to examinations when the Secretary thought necessary. On June 23, 1836, an act was passed "to regulate the deposits of the public money" following closely the provisions of Taney's contracts.¹⁸ In his annual message, September, 1837, Van Buren showed that the custody of the public funds by state banks had proved very unsatisfactory and urged that the government take care of its funds itself and require that all dues be paid in specie. While this suggestion was being considered, the public funds were left in the hands of the collecting officers and a few banks.

The bill creating the Independent Treasury, finally passed on July 4, 1840, was repealed on August 13, 1841, and was repassed on August 6,

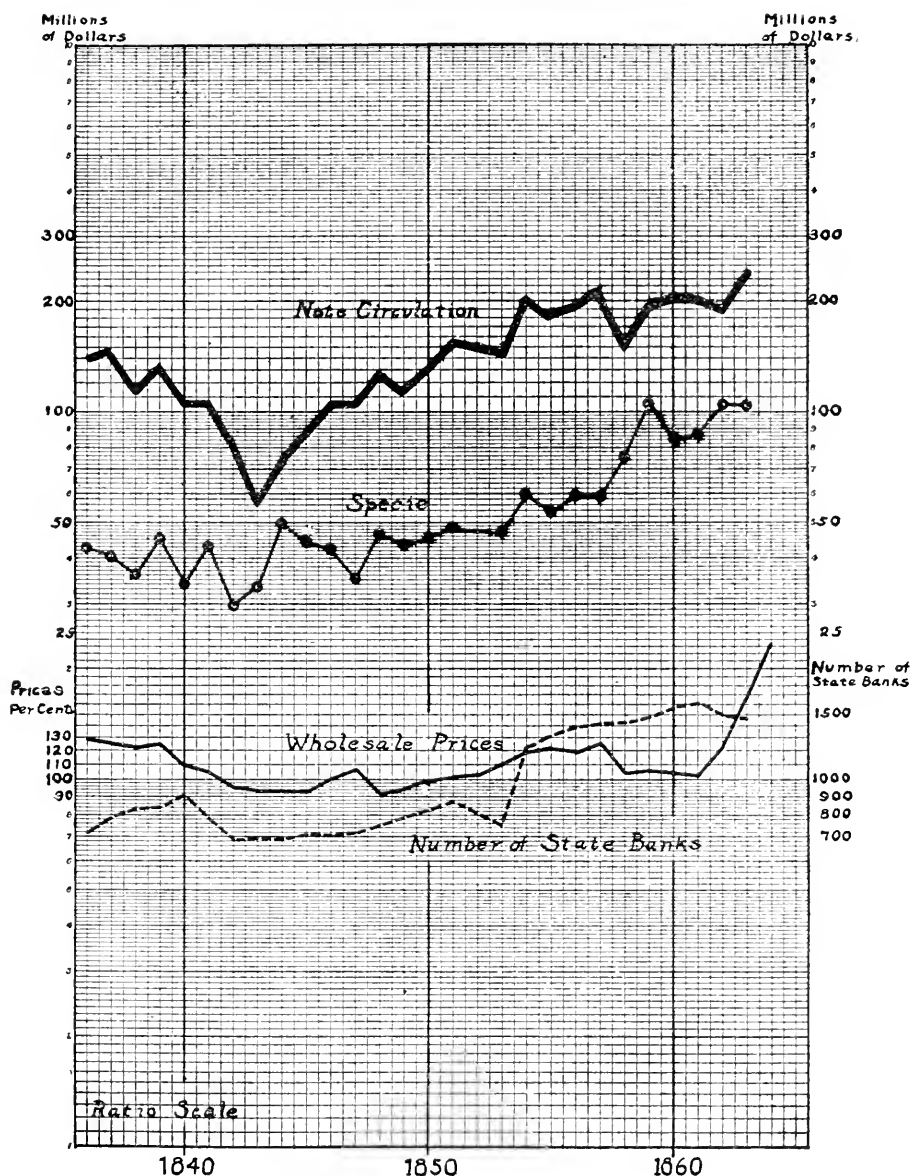
¹⁷ Kinley, David, *Independent Treasury*. 1910, pp. 26, 27.

¹⁸ This act provided that the banks selected as depositories must furnish the Secretary with a statement of their condition, a list of their directors, the current price of their stock and a copy of their charter. Further, the Secretary might examine the general accounts. Such banks must redeem their notes upon demand, and no bank issuing notes of a denomination of less than \$5 was to be chosen. Collateral against the funds so deposited could be called for whenever the Secretary deemed this necessary, and must be called for if the deposits exceeded one-half the Bank's capital. In return for such deposits, the banks must render the government all the services and duties heretofore required of the Second Bank. It was further provided that if the government's deposits exceeded a fourth part of the Bank's capital for at least three months, interest at the rate of 2 per cent per annum must be paid on this excess.

¹⁵ Catterall, Ralph C. H., *The Second Bank of the United States*, p. 164.

¹⁶ Kinley, David, *Independent Treasury*. 1910, pp. 26, 27.

CHART II
Statistics of State Banks, 1836-1863



1846.¹⁹ The act provided that all receivers of public moneys must keep such funds as were received by them

¹⁹ The repeal of the act in 1840 necessitated a return to the use of state banks as depositories, until the act was repassed.

safely without loaning, using or depositing them in banks. Further, on and after June 1, 1847, all payments of taxes, duties, etc., to the United States must be made in gold or silver or Treasury notes. New York, Phila-

delphia, Washington, Charleston, New Orleans and St. Louis were made the principal centers of deposit.

STATE BANKS, 1836-1863

In the course of these years, "almost every type of banking system was attempted, and the result was the accumulation of a great fund of experience"²⁰ mostly as to the best way in which not to conduct banking. In New England and in New York the efforts to regulate banking through state and private means were much more successful than in the rest of the country. Thus, by an act passed in 1829, New York State endeavored to protect both the depositor and note holder by means of a safety fund which was built up by contributions from the banks and which was to be used to meet the obligations (excluding capital) of the failed banks. This scheme was not very successful until, beginning with 1842, the use of the fund was limited strictly to the redemption of the notes of failed banks. The notes of the banks organized under the Free Banking Law of 1838 in New York State were protected, not by the safety fund, but by deposits of certain specified bonds or mortgages with the state comptroller.

The success of the First and Second United States Banks led many states to charter banks modelled upon these. Among the more successful were the State Banks of Indiana, Louisiana and Ohio, but the Bank of the Commonwealth of Kentucky, the Banks of Alabama, of Mississippi, of Arkansas, of Illinois and the Union Bank of Florida ended in dismal failures, leaving the citizens with millions of dollars of unredeemed notes and worthless deposit accounts.

In the western and southern states, "due to the lack of public regulation,

to the want of any uniform system—and to the significant fact that public opinion was both torpid and unintelligent,"²¹ the losses to the people from poorly and dishonestly managed banks were enormous. Some of these banks were established by special charters, some, under the Free Banking Laws; few seemed to have been prudently or wisely managed. Some, called "wild-cat" or "red-dog" banks, were located in remote sections, in order to keep their notes in circulation longer and render redemption more difficult. The lack of any uniformity in the bank notes, the failure adequately to protect them, and the absence of governmental control were among the motivating factors leading to the passage of the National Bank Act.

THE NATIONAL BANKING SYSTEM

The national banking system, resembling somewhat the free banking system of New York State, was recommended by Secretary Chase as early as December, 1861. After two defeats, due largely to the opposition of the state banks, the bill establishing the system became a law February 25, 1863; but in accordance with the recommendations of Mr. Hugh McCulloch, the first Comptroller of the Currency, it was completely revised and passed again on June 3, 1864.²²

The predominating motive in Secre-

²¹ White, Horace, *Money and Banking*. 1914, p. 331.

²² The chief differences in these two bills were as follows:

1. The Act of 1863 required a smaller minimum of capital for a new bank than did the Act of 1864, and required that a smaller proportion be paid in before beginning business, and allowed a longer time for the payment of the remainder.

2. The Act of 1863 permitted loans on real as well as personal security.

3. The prohibition of issuing notes of a denomination less than \$5 took place at once in the former act.

4. By the former act all national banks were

²⁰ Willis, H. P., *American Banking*, 1918, p. 212.

tary Chase's mind for the passage of the act was the establishment of a uniform currency. On January 1, 1862, there were in the United States, 1,496 banks issuing some 7,000 different kinds of circulating notes, "based on a great variety of securities, of different qualities and quantities,"²³ and some based on no security at all. The framers of the Act not only wished to rid the country of such conditions as these, but it was felt by many also that the issues of state bank notes were frequently redundant, were subjected to violent expansions and contractions, and were unequally distributed among the various states.²⁴

The increased demand for bonds, which such a system would create, was to Secretary Chase a motive of secondary importance.²⁵ Additional advantages of the system, of course, were that such banks could act as depositories of government funds, float loans, stimulate patriotism, and, because of being a national system, prevent future rebellions.

By the Act of 1864 the capital of the national banks was proportioned to the population as follows:

	<i>Capital</i>
Cities with a population of 6,000 or less.....	\$50,000
Cities with a population of from 6,000 to 50,000.....	100,000
Cities with a population of 50,000 and above.....	200,000

required to maintain a reserve of 25 per cent against notes and deposits.

5. The Act of 1864 makes more complete provision for the conversion of state banks into national associations.

²³ Dewey, D. R., *Financial History of the United States*. 1918, p. 321.

²⁴ Chart II, brings out the first two points in a striking fashion.

²⁵ As a matter of fact, at the time of Lee's surrender, the bonds bought by the national banks to secure their circulation were less than 4 per cent of the total bonds floated by the government during the war.

of which 50 per cent was to be paid in cash before commencing business and the remainder within five months at a rate not less than 10 per cent per month.²⁶

Each national bank was required to buy government registered bonds to an amount not less than \$30,000 or less than one-third of the capital stock paid in. When such bonds had been deposited with the Treasurer of the United States, the national bank would be entitled to receive notes up to 90 per cent of the par or market value of the bonds whichever was the lower, but no bank was permitted to issue an amount of notes greater than its paid-in capital. Thus the circulation could at no time exceed the paid-in capital of all the banks, and in addition an absolute maximum of \$300,000,000 was placed on the note issues. The notes were to be receivable at par in payment of all dues to the United States except for duties on imports, and to be paid out at par for all the debts of the United States except interest on the public debt, and in redemption of the national currency.²⁷

It was further provided that national banks in the reserve cities must make arrangements to redeem their currency in New York City, and, simi-

²⁶ The Act made an error in not proportioning capital to the bank's liabilities instead of to the population of the town in which the bank happened to be located. The requirement that the capital be paid in cash was an effort to stop the vicious practice begun at the time the First Bank was chartered of allowing the shareholders to contribute their part of the capital in their own discounted notes.

²⁷ Inasmuch as the Loan Acts of March 3, 1863 and March 3, 1864, provided that both principal and interest be paid in coin, and the Loan Acts of February 25, 1862, June 30, 1864 and March 3, 1865, provided for the payment of the interest in coin, in order to help sustain the public credit, it was necessary, therefore, as specie payments were suspended from 1862 to 1879, that the government collect its import duties in gold in order to obtain a supply which could be used as required by the above acts.

larly, national banks in country towns must redeem their notes at some bank located in a reserve city.²⁸

By an act passed on March 3, 1865, \$150,000,000 of the national bank notes were to be apportioned among the national banks in the several states according to the respective populations, while the remainder was to be proportioned by the Secretary of the Treasury "having due regard to the existing banking capital, resources, and business of such States, Districts, and Territories."

State bank notes were forced out of circulation by a provision in the Revenue Act of March 3, 1865, levying a 10 per cent annual tax on the notes paid out after July 1, 1866.²⁹

That the entrance of state banks into the system was slow at first, was due, according to Mr. McCulloch, to the fear on their part that the national banking system might be a repetition of the free banking system in its worst aspects. Up to November 25, 1864, only 168 state banks had entered the system, but with the retirement of the state bank notes in sight, only 244 remained out by the end of 1868, and 1,643 were members of the national banking system. An amendment to the National Bank Act passed on

²⁸ New York was the only central reserve city, whereas the reserve cities were St. Louis, Louisville, Chicago, Detroit, Milwaukee, New Orleans, Cincinnati, Cleveland, Pittsburg, Baltimore, Philadelphia, Boston, Albany, Leavenworth, San Francisco, Washington City, and later, Charleston and Richmond.

Banks in New York City were to keep on hand a 25 per cent lawful money reserve against both notes and deposits, while banks in the reserve cities were to keep a 25 per cent reserve but one-half of this might be deposited with a New York City bank. Banks in other towns must keep a reserve equal to 15 per cent, three-fifths of which could be kept on deposit with a bank in a New York or in any reserve city.

²⁹ State bank notes made their last appearance in the Treasury reports on July 1, 1876, when the circulation was \$1,047,335.

June 20, 1874, did away with the lawful money reserve which was formerly required to be held against the circulation, provided for the 5 per cent redemption fund, provided that hereafter banks would have to redeem their notes only at their own counters or at the Treasury Department, and also provided that a bank which wished to retire its circulation might withdraw the bonds deposited with the Treasurer of the United States, provided that lawful money to an equal amount be deposited to redeem the circulation still outstanding; but in no case should the amount of bonds on deposit for circulation be reduced below \$50,000.³⁰ By the Resumption Act of January 14, 1875, the provisions in the former acts regarding the aggregate amount of national bank notes in circulation and their distribution were repealed.

From 1882, when the national bank notes in circulation touched the highest figure up to that time, 361 million dollars, the amount outstanding declined rapidly until in 1891 there were only 172 million dollars in circulation, and of this amount more than 50 millions were secured by lawful money. Naturally one would expect a bank's circulation to increase as the population grew and the nation's resources were developed, but it must be remembered that these bank notes based on government bonds were alone of their kind in the world, and as the yield on government bonds³¹ was decreasing

³⁰ By the Act of July 12, 1882, banks with a capital of \$150,000 or less were permitted to withdraw bonds, which they had deposited against their circulation, down to one-fourth of their capital, provided that they deposit enough lawful money to retire the notes not covered by bonds, but not more than \$3,000,000 of National Bank notes were to be so retired in any one month. All bond requirements were repealed by the act of June 21, 1917.

³¹ By reason of the steadily rising prices of the bonds.

throughout this period, it was no longer as profitable for the banks to take out notes, as the so-called double-profit had declined. From 1891 to 1899, the amount of national bank notes increased, due to the increased yield on government bonds, and to special demands for money during the panic of 1893.

THE GOLD STANDARD ACT OF 1900

This act derives its name from the fact that it provided that the dollar, consisting of twenty-five and eight-tenths grains of gold, nine-tenths fine, should be the standard unit of value, and all other forms of money should be maintained at a parity of value with the standard.³²

The Act also allowed national banks with as small a capitalization as \$25,000 to be formed in towns of 3,000 inhabitants or less.³³ This led to a rapid increase in the number of national banks from 3,583 in 1899 to 4,165 in 1901.

Though the notes to be issued by a national bank were at no time to exceed its paid-in capital, it was provided that they could be issued hereafter up to the full market or par value of the bonds deposited, whichever was the lower, instead of only up to 90 per cent of such value. The refunding of the 5 per cent bonds maturing in 1904, the 4 per cent maturing in 1907, and the 3 per cent maturing in 1908, representing a total amount of 839 million dollars, into 2 per cent bonds maturing in 1930, was provided. One purpose of

³² This act simply affirmed the gold standard which had really been established in the act of 1873 which demonetized the silver dollar.

³³ As established by the Act, the capital requirements were:

	<i>Capital</i>
In towns of less than 3,000.....	\$25,000
In towns of 3,000 to 6,000.....	50,000
In towns of 6,000 to 50,000.....	100,000
In towns with more than 50,000 people	200,000

this measure was to provide a basis for the bond-secured national bank notes by postponing the maturity of a large part of the public debt.³⁴ The tax on the notes issued remained at 1 per cent per annum if the bonds bore more than 2 per cent interest, but if they bore 2 per cent interest or less, this tax was reduced to one-half of 1 per cent.

Under the stimulus of the Act, especially by reason of allowing national banks to issue notes up to the par value of the bonds, and by reason of the increased yield of government bonds, the amount of notes in circulation increased rapidly from 332 million dollars in 1900 to 609 millions in 1907.

The Gold Standard Act of 1900 was not a constructive piece of legislation, as it did little else than modify slightly the technical details in the organization and operation of the national banks, and made no attempt to remedy any of the basic defects of our banking system.

THE PANIC OF 1907

Beginning with 1896, prices in the various gold standard nations, which had been falling for nearly a generation, began to turn upward. This change was due to an increase in the production of gold and use of money substitutes, and to the wasteful exploitation of the world's natural resources. The rise in the price level led to such a stimulation of industry that until 1907, aside from a local crisis in Germany in 1900 and the "rich man's panic" of 1903 in America, the period was one of general prosper-

³⁴ Horace White has estimated that the loss to the government on additional interest paid by extending the maturity of these bonds amounted to \$244 millions — a tremendous price to pay for an increase in circulation up to 1907 of only 277 millions of dollars. *Money and Banking*, Horace White. 1914, p. 406.

ity. This expansion in business and the resulting increase in speculation intensified the demand for capital. As the demand could not be met from the current savings of the people, commercial banks began to make larger and larger extensions of credit, a policy which resulted in progressively lower reserves and forced the banks to raise discount rates and curtail extensions of credit. This retrenchment was accompanied by a diminishing purchasing power on the part of the great mass of consumers, for wages lagged behind prices in the upward movement, forcing the sale of products at sacrifice prices. This condition checked the rise in the price level and brought on a period of depression throughout the world.

In America, as in the nations of Europe, prices, wages and interest rates rose one after the other. While this differential between prices and the cost of production lasted, the speculator optimistically capitalized the future earnings of industry, and the prices of stocks soared, reaching a peak in 1906.

Toward the end of that year it was apparent that the demand for capital was such that borrowers had difficulty in being accommodated even though bank credits were strained to the limit. In January and February of 1907 large blocks of securities had to be sold to repay the loans previously procured from the London market through the drawing of finance bills. Prices of stocks fell steadily and crashed in March. After a slight recovery the market began to fall again in August and was still falling when the panic occurred.

In addition to the general causes of the world crisis of 1907, there were elements of weakness in the American banking system, reflected chiefly in the New York money market, which caused the crisis here to degenerate into a panic. One of the most significant facts in the development of American banking from 1896 to 1907 was the rapid growth of state banks and trust companies. State banks increased particularly throughout the West and South as the requirements of the state

TABLE A—GROWTH OF STATE BANKS AND TRUST COMPANIES, 1896, 1902, 1907
STATE BANKS

Year	Number	Capital (Millions)	Individual Deposits (Millions)	Cash Holdings (Millions)	Proportion of Cash to Deposits
1896.....	3,978	310.8	695.7	101.0	14.5%
1902.....	5,433	388.3	1,698.2	178.6	10.5
1907.....	10,352	664.2	3,068.6	254.0	8.3

TRUST COMPANIES

Year	Number	Capital (Millions)	Individual Deposits (Millions)	Cash Holdings (Millions)	Proportion of Cash to Deposits (National Bank Notes Included)
1896.....	257	173.5	586.5	26.8	4.6%
1902.....	636	329.6	1,525.9	31.9	2.1
1907.....	1,485	645.4	2,061.6	101.7	4.9

banking laws were less strict there than those of the National Bank Act. The greatest growth in trust companies occurred in the East, as there they were not subject to the same strict requirements as were state and national banks. The growth of these two types of banking institutions is shown in Table A on the preceding page.

As the proportion of cash to the individual deposits of state banks and trust companies, amounting to 8.3 per cent and 4.9 per cent respectively, in 1907, was woefully inadequate to meet a heavy drain, they carried balances with national banks which they planned to withdraw in time of an emergency. On August 22, 1907, they had 196.3 million dollars on deposit with the national banks in New York City. Though these deposits would surely be withdrawn during a crisis, the national banks in the performance of their functions as reserve agents, "did not build up reserves any larger than they would have carried had they been received from that class of conservative individuals who habitually maintain large balances with their banks."³⁵ Furthermore the national banks in New York City held a considerable porportion of the deposited reserves of the national banks located in the interior, amounting on August 22 to 213.8 million dollars.³⁶ Against the certainty of having the bankers' balances withdrawn during a crisis, the New York banks maintained the ridiculously low cash reserve of 224 million dollars in 1906 (though this was slightly above the legal minimum) against total deposits (including those made by the government) of 1,162 millions, of which at least a half consisted of bankers' balances. That they would be unable to meet heavy with-

drawals during a crisis, a time when banks ought to increase their loans to save the solvent but temporarily embarrassed borrower, is obvious.

Moreover, the Secretary of Treasury, Leslie M. Shaw, encouraged other unsound banking practices by a series of innovations which he introduced from 1902 to 1907. Among the more radical of his changes, was the exemption of national banks from the maintenance of a cash reserve against government deposits, the acceptance of other than United States bonds as securities for government deposits, the depositing of government funds where money seemed tight, and the artificial stimulation of gold imports.

The cause directly leading to the panic was the announcement, on October 21, 1907, by the National Bank of Commerce of New York that it would no longer clear for the Knickerbocker Trust Company, whose management was under suspicion. This action precipitated a run on the Trust Company, which was forced to suspend the following day after paying out eight million dollars. Immediately, the alarm spread throughout the land, a wild scramble for money ensued, banks and individuals hastened to withdraw their funds from the New York City banks, and the panic was on. The New York City banks being ill prepared to meet these heavy withdrawals were forced to suspend cash payments on October 26. The rest of the country immediately followed their example.

THE DEFECTS IN THE AMERICAN BANKING SYSTEM AS REVEALED IN THE PANIC OF 1907

One of the most serious of these defects was the rigidity and immobility of the reserves. The proportion of reserves to be held by national banks against their deposits were definitely

³⁵ Sprague, O. M. W., *History of Crises Under the National Banking System*. 1910, p. 226.

³⁶ See footnote 37.

fixed by statute.³⁷ In compliance with the provisions of the Act, on August 22, 1907, national banks held cash and deposited reserves as shown in Table B.

The provision allowing a certain proportion of the reserves to consist of balances with other banks was intended to provide the interior banks with exchange to sell on New York and other important commercial centers. However praiseworthy this intention might

brokers, as call loans, which they felt were the most liquid form, in the absence of a general discount market. The capacity of the interior banks to meet their depositors' demands during a panic depended in part upon their ability to withdraw the funds which they had deposited with their New York reserve agent. But the New York banks were unable to meet heavy drains of cash, due to the insufficiency of their reserves, and the unliquid

TABLE B—CASH AND DEPOSITED RESERVES OF NATIONAL BANKS, AUGUST 22, 1907

	Number of Banks	Deposits (millions)	Cash Reserves (millions)	Deposited Reserves (millions)
Central Reserve Cities	60	\$1,205.5	\$315.5	....
Reserve Cities.....	306	1,423.4	196.6	\$165.7
Others.....	6,178	2,627.2	216.8	226.7
Total.....	6,544	\$5,256.1	\$728.9	\$392.4

Percentage of cash reserves against deposits = 13.87%.

be, the provision led to a pyramiding of reserves, so that our credit structure represented an inverted pyramid with a relatively small cash apex in New York City. In fact, of the reserves deposited with national banks in central reserve cities, more than two-thirds were held by the banks in New York City. In August of 1907 they held cash reserves against these bankers' balances amounting to 26.5 per cent, and, as was customary, had loaned a large part of the remainder to

character of call loans, secured by stocks and bonds, during a panic when the prices of securities were tumbling. Far from being able to repay his loans, the broker needed additional help from bankers at such a time.³⁸

Realizing that it might be impossible, during a panic, to withdraw their deposited funds, national banks placed great dependence upon their cash reserves to meet the emergency. But these, scattered as they were in 1907 among 6,429 banks, were ineffective in allaying the panic. When the financial storm broke each little bank endeavored to strengthen and to guard its own reserve against withdrawals, as there was no established agency

³⁷ The provisions were, that national banks in New York City, St. Louis and Chicago (known as the central reserve cities) must keep a lawful money reserve of 25 per cent against their deposits; that national banks in some forty-seven other large towns (reserve cities) must maintain a 25 per cent reserve but one-half of this might be deposited with a national bank in a central reserve city; all other national banks were to maintain a 15 per cent reserve but three-fifths of this might be deposited with national banks in reserve or central reserve cities.

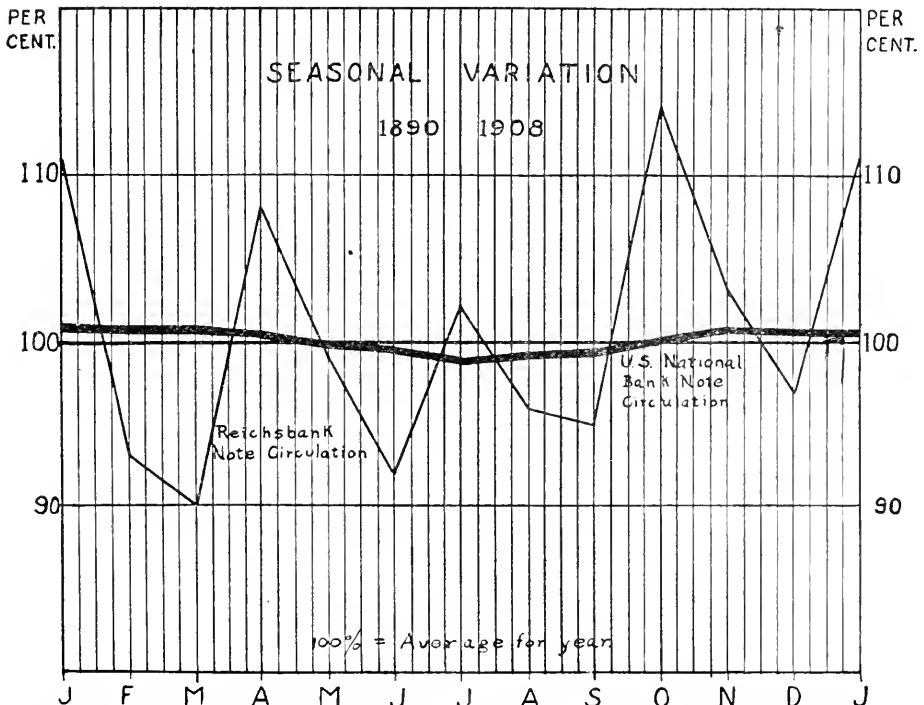
³⁸ Prof. Sprague finds that out of a total loan increase by the national banks in New York City between August 22 and December 3, 1907 of sixty-three million dollars, call loans account for fifty-four million dollars.—*History of Crises Under the National Banking System*, p. 301.

which would grant it aid through the extension of loans or the discounting of its paper. Once the reserve had fallen to the legal minimum, the bank was not expected to extend any further accommodation to its customers. The cash reserves of national banks, though large in the aggregate, were so scattered, hoarded and immobile as to be ineffective during a time of financial difficulty.

Another defect in our banking system revealed in 1907, as in every other panic, was the inelasticity of the national bank notes. An elastic currency should expand to meet seasonal and cyclical demands for money, and when these demands have been satisfied, should contract. Cyclical demands occur at the time of a crisis, for then business confidence is at a low ebb and

money, rather than credit instruments, is demanded as a medium of exchange. The suspension of specie payments, following the failure of the Knickerbocker Trust Company resulted in a premium on currency ranging as high as 4 per cent. The Honorable A. Piatt Andrew has estimated that to meet the demands for money, 334 million dollars of currency substitutes were issued, including clearing house loan certificates and checks, cashiers' checks and manufacturers' pay checks.³⁹ Our bank notes did not begin to increase until the first part of November and by the first of the year had increased by only fifty-four million dollars. The reason is found in the time it took to buy the necessary bonds and to comply with the governmental red tape.

CHART III



³⁹ Andrew, A. Piatt, "Substitutes for Cash in the Panic of 1907." *The Quarterly Journal of Economics*, August, 1908.

Seasonal demands for money arise from periodically recurring needs, such as the demands of the farmers for money each fall to harvest and market their crops. As the national bank notes failed to expand, the interior banks secured much of the money needed by withdrawing their deposits from the New York banks. To the extent that the New York banks met this demand with lawful money, their reserves were lowered, necessitating a contraction of loans and forcing up interest rates. Chart III showing the seasonal variations (with secular and cyclical tendencies removed) in the national bank notes and the notes issued by the Reichsbank, illustrates in a striking fashion the inelasticity of the former.

Such powers of expansion and contraction as the national bank notes possessed, depended upon the yield of government bonds, for should this increase, the double profit would rise and it would become profitable for banks to force the notes into circulation.⁴⁰

The seasonal movements of currency into and out of the New York City banks, producing a dearth of money at one time and a plethora at another, caused interest rates to vary from artificially low levels to abnormally high. Thus the average weekly low call money rate from 1890 to 1908 was 2.31 per cent, occurring in the second week of June, while the average high, was 7.38 per cent,⁴¹ occurring in the fourth week of December. Had the seasonal demands been met, as was true on the Continent, by an actual increase in the amount of currency, instead of by shifting funds from one

section to another, and had this currency contracted, once the need was satisfied, interest rates could have been fairly stabilized. Furthermore, due to the immobility of reserves, and the concentration of banking capital in the East, there were considerable sectional disparities in interest rates which could not be eliminated without central reserve banks.

From time to time, the government endeavored to extend relief to the banks in order to counteract the evils in our banking system. The innovations of Secretary Shaw have been noted. Mr. George B. Cortelyou, his successor, continued this policy. After the panic had begun, he transferred to the national banks in New York City (from October 21 to October 31) nearly thirty-eight million dollars to help them meet their withdrawals. Later he offered for sale 150 million dollars of bonds to stimulate the issue of national bank notes. The government had to choose between interfering in the money market in this way or keeping its funds locked up in the sub-treasuries. This latter policy would have had the effect of making the currency redundant at the time the government made disbursements and scarce when its taxes were collected.⁴²

⁴² The Act passed in February 25, 1863 establishing the national banking system amended the Independent Treasury Act so as to allow national banks designated by the Secretary of the Treasury to be depositaries of public funds, except receipts from customs. These banks were required to give security by the "deposit of United States bonds and otherwise." By an act passed on March 3, 1901 the Secretary of the Treasury was expected to "distribute the deposits herein—so far as practicable equitably between different States and sections." Secretary Shaw, in 1903, began to accept other than United States bonds from the banks against government deposits, interpreting the words "and otherwise" to mean "or otherwise." By the Act of March 4, 1907 it was provided that receipts from customs might be placed in designated depositaries.

⁴⁰ See pages 8 and 9 for a further illustration of this point.

⁴¹ Kemmerer, E. W., *Seasonal Variations in the Relative Demand for Money and Capital in the United States.*—1910, p. 15.

Of course such policies as introduced by Secretary Shaw were but palliatives for the situation and could not by themselves remedy the defects of our banking system.

EFFORTS AT REFORM

It was imperative that the defects in our currency and banking systems should be remedied, if the nation were to escape the disaster, humiliation and ruin of recurring panics. The members of the American Bankers Association were among the first to realize the necessity for reformation, and endorsed, at a meeting held in Baltimore in 1894, a plan of reform known thereafter as the "Baltimore Plan." This plan proposed that government bonds be eliminated as security for national bank notes, and provided for their issue on much the same conditions that govern the issue of the Canadian bank notes.⁴³

About the same time in a report to Congress, Mr. John G. Carlisle, Secretary of the Treasury from 1893 to 1897, proposed a plan of reform resembling in its main outlines the Baltimore Plan, but with the addition that the provisions in the National Bank Act requiring banks to main-

tain a reserve against deposits be repealed.⁴⁴

On November 18, 1896, a resolution was adopted by the Board of Governors of the Indianapolis Board of Trade inviting representatives from the boards of trade of sixteen middle western cities to assemble at Indianapolis in December of 1896 "for the purpose of considering the advisability of calling a larger conference,—to consider the propriety of creating a non-partisan commission, to which shall be assigned the duty of formulating a plan for the reform of our currency system."⁴⁵

Representatives from the boards of trade and similar commercial bodies of eleven of the cities invited attended this preliminary conference and issued a call for a non-partisan monetary convention of business men to convene at Indianapolis on January 12, 1897. Delegates from twenty-six states and the District of Columbia attended the convention, at which it was unanimously agreed that an executive committee of fifteen be appointed which would endeavor to procure at the next session of Congress legislation for the appointment of a Monetary Commission by the President, to consider the entire question of currency and banking reform. In case this effort failed it was provided that the executive committee should

⁴³ The "Baltimore plan" proposed that government bonds be eliminated as security for bank notes and provided that each National Bank be allowed to issue notes up to 50 per cent of its paid-up, unimpaired capital subject to a tax of one-half of one per cent per annum on the average amount of notes outstanding, and further that an additional circulation, known as emergency currency, equal to 25 per cent of the bank's paid-up unimpaired capital be allowed subject to a heavier tax. Each bank issuing notes was to contribute an amount to a central guarantee fund equal to 5 per cent of its notes in circulation, from which the notes of failed banks were to be paid. If the fund were not sufficiently large for this, the remainder of the notes were to be redeemed from the assets of the failed bank. A 5 per cent redemption fund was to be maintained as at present.

⁴⁴ Carlisle's plan closely followed the Baltimore plan, but differed in this respect that in addition to the 5 per cent guaranty fund, he would require each national bank issuing notes to maintain 30 per cent lawful money reserve, consisting of United States notes including the Treasury notes of 1890, against the notes issued. State banks were to be allowed to issue notes in accordance with these provisions. He also proposed that the provisions in the National Banking Act requiring a bank to maintain reserves against deposits be repealed.

⁴⁵ *Report of the Monetary Commission of the Indianapolis Convention, Chicago.*—The University of Chicago Press, 1898. p. 5.

select eleven men to make a thorough investigation of the monetary needs of the country. The Commission of Eleven was appointed and held their first meeting on September 22, 1897, in Washington. After a series of conferences lasting through the fall, a preliminary report was adopted on December 17, while the preparation of the final report was entrusted to J. Laurence Laughlin, a member of the Commission. This report was completed by April of 1898. The preliminary report simply states the Commission's plan of reform, while the final report deals in an exhaustive way with the subject of money and banking from a theoretical, historical and statistical standpoint, and is a noteworthy contribution to economics.

After advising that the existing gold standard be maintained the Commission proposed that national banks be allowed to issue notes up to the amount of their paid-up unimpaired capital, exclusive of so much as is invested in real estate. For the first five years after the passage of the proposed measure, the notes issued up to 25 per cent of a bank's capital were to be secured by government bonds, but thereafter the amount of bonds required to be deposited, before notes might be issued, was to be reduced by one-fifth each year. The notes issued in excess of 60 per cent of the capital and not in excess of 80 per cent were to be taxed at the rate of 2 per cent per annum, while those issued in excess of 80 per cent were to be taxed at the rate of 6 per cent per annum. In order to

protect the noteholders from loss, each bank was to contribute to a guaranty fund an amount in gold equal to 5 per cent of its circulation, from which the notes of failed banks were to be paid. In case that the fund became impaired, by reason of payments made to redeem the notes, the Comptroller of the Currency was authorized to make an assessment upon all banks in proportion to their circulation. The present 5 per cent gold redemption fund was to continue.

The plan for banking reform included the proposals that the present reserve requirements be maintained against deposits with the exception that one-fourth of the reserves required should be held in coin in the vaults of the bank. The establishment of branch banks was provided for in case the Comptroller of the Currency approved. It was further recommended that the organization of national banks in towns of 4,000 or less with a minimum capital of \$25,000 be permitted.

The Commission's proposals would have provided America with a safe and elastic currency, but would not have remedied any of the other defects of our banking system. These could not be removed by a modification of the then existing system, but required the introduction of central reserve banks. The work of the Commission is valuable, not because of its immediate effect upon legislation, but for the reason that it awakened the public conscience to the necessity of banking and monetary reform, and paved the way for the final reformatory measures.

The Studies of the National Monetary Commission

By N. A. WESTON

University of Illinois

THE National Monetary Commission had its origin in the financial and banking panic of 1907. That astonishing disturbance and collapse of credit was one of the most unbecoming, if not disgraceful, episodes in our financial history. Popular clamor followed. When the air had cleared it was seen that the trouble was due to the banking system, which, ill-adapted to supply the needs of a progressive industrial nation under normal conditions, was utterly inadequate for the preservation of business equilibrium and the allaying of distrust in times of business accident and unexpected strain.

Dissatisfaction with our banking system began, however, long before the panic of 1907. The banks received a share of the blame for the crises of 1873 and 1893, while during the ten years of intense business activity preceding the panic of 1907, banking reform was a question of almost constant public agitation. This was a period of rapid, indeed almost revolutionary, changes in industrial and commercial organization, but the development of banking seemed to lag behind, owing, it was believed, to the rigid character of the banking laws. The panic of 1907 brought the criticism of the banking system to a climax and the Congress which assembled in December of that year, some weeks after the outbreak of the panic, was flooded with bills designed to reform the monetary and banking systems of the country.

In this aroused state of public opinion some action by Congress was inevitable, but it was soon realized that widely divergent views as to

what was needed to correct the evils of the existing situation, conflicting business interests and partisan political aims, would prevent the enactment of any thorough-going measure of reform. The leaders of the dominant party in Congress adopted, therefore, a temporizing policy and secured the passage of a law, commonly known as the Aldrich-Vreeland Act, approved May 30, 1908, providing for the issuance of emergency currency under certain conditions. This act was a makeshift measure and must be regarded as a political rather than a financial expedient. It was passed with but little debate and without previous consideration by the regularly constituted committee of either house of Congress. It was intended to satisfy the urgent public demand for action by Congress and to enable the party in power to say that provision had been made against a recurrence of the troubles that had afflicted the country in the preceding autumn.

THE MONETARY COMMISSION AND ITS DUTIES

But the Aldrich-Vreeland Act also created the National Monetary Commission, to be composed of nine members from the Senate and nine from the House of Representatives, prescribed its authority and duties and made an appropriation to cover the necessary expenses of its work. The work of the Commission is clearly defined in Section 18 of the Act which provides:

That it shall be the duty of this commission to inquire into and report to Congress at the earliest date practicable, what changes are necessary or desirable in

the monetary system of the United States or in the laws relating to banking and currency. The commission shall have the power, through subcommittee or otherwise, to examine witnesses and to make such investigations and examinations, in this or other countries, of the subjects committed to their charge as they shall deem necessary.

Within a short time after the passage of the law, the National Monetary Commission was organized with Senator Nelson W. Aldrich, of Rhode Island, as chairman and Congressman E. B. Vreeland, of New York, as vice-chairman. The Commission was a purely political body. The law restricted membership to senators and representatives in Congress. All sections of the country, including sixteen different states, were represented in its original composition. The members could hardly be regarded as experts or even students of banking and currency problems and only a few of them had had any legislative experience with such questions. The Commission was, therefore, forced to depend in large measure on outside help in making its inquiry and preparing its recommendations. Almost from the beginning, the work of the Commission was personally directed by Senator Aldrich and was continued for a period of more than three years with some considerable intervals of inactivity.

In order to make the inquiry required by the law and bring together the information that would be needed in formulating legislative proposals, the Commission employed a number of prominent economists, financial editors, bankers and government officials in the United States and foreign countries to prepare monographs, papers and reports on the actual operations of banks and on their separate functions and mutual relations. Members of the Commission visited the leading coun-

tries of Europe whose economic conditions were most nearly like our own, and appointed representatives to visit other countries for the purpose of holding personal interviews with the officials of leading institutions concerning their banking organization and their arrangements for dealing with reserves, note issues, commercial paper and other banking problems. The Commission also conducted hearings and made inquiries in different parts of the United States and particularly in a dozen or more of the leading commercial centers of the country for the purpose of getting the opinions of people in different localities and occupations on desirable changes in our banking laws. The discussion of currency and banking problems in the meetings of various learned societies and associations of business men and bankers were also utilized by the Commission as a means of securing expert opinions.

PUBLICATIONS OF THE MONETARY COMMISSION

The results of the studies and investigations carried on by people enlisted in the service of the Commission, and of its own interviews, public hearings and inquiries, together with the report and bill submitted to Congress by the Commission at the conclusion of its work, have been issued as public documents in a series of twenty-three volumes under the general title of *Publications of the National Monetary Commission*. The material in these volumes covers about 14,000 octavo pages and about 1,200 quarto pages, the latter containing chiefly statistical matter. Of the total of over 15,000 pages, about two-thirds, or more than 9,000 pages, deals with banking and related problems in foreign countries. Of the whole mass of information brought together in the

publications only a relatively small part is entirely new. Some of the material included is simply a reprint of previous publications, and a large part of the matter dealing with American conditions consists of books, monographs and reports previously published but revised and brought up to date and republished for the uses of the Commission.

Some of these revisions were, however, of vital importance to the completion of the investigation which the commission had undertaken. This was especially true of the two monographs by Dr. David Kinley on "The Independent Treasury of the United States and its Relations to the Banks of the Country" and "The Use of Credit Instruments in Payments in the United States." The study of Treasury operations left no doubt concerning the need of some new and efficient machinery for handling the government's financial business, while the investigation of the use of credit instruments fixed attention on the tremendously important function of the deposit currency as a means of employing bank credit in the transaction of the business of the country.

VALUABLE CONTRIBUTIONS

Among the most notable of the new contributions to the study of American conditions were the "Seasonal Variations in the Relative Demand for Money and Capital in the United States" by Professor E. W. Kemmerer and the "History of Crises under the National Banking System" by Professor O. M. W. Sprague. The volume by Professor Kemmerer is an elaborate statistical study based on a mass of financial data, such as statements of condition of banks, clearing house returns, movements of money, rates of exchange, monetary circulation, bond prices, etc. The study was not con-

fined to the New York money market alone, but included also the markets of Chicago, St. Louis, New Orleans and San Francisco, to the extent that information was available. While Professor Kemmerer's investigation was the most complete of any ever made in this field, it did not result in any modification of accepted theories of seasonal and other periodic market movements but served rather to confirm them.

Professor Sprague's volume of 484 pages on "The History of Crises under the National Banking System" is an important contribution to our financial literature and the most valuable of the original studies made for the Monetary Commission. It is a careful, critical examination of the results of banking policy and management as developed under the National Bank Act in all the periods of crisis from 1873 to 1907. Professor Sprague describes the nature of the problems that presented themselves from time to time and compares the success of the methods that were evolved to meet them. His final judgment is that "it is impossible to escape the depressing conclusion that the banking situation in 1907 was handled less skilfully and boldly than in 1893, and far less so than in 1873. No new elements of weakness were disclosed, but no real effort was made to overcome difficulties which had been met, with partial success at least, on former occasions." The most important lesson to be drawn from Professor Sprague's study is that banking reform would prove most certain and successful if pursued along the line of the means naturally evolved by our bankers for meeting their problems.

Such an inference is in accordance with our best experience. Probably the most successful banking system we have had in this country was the Suffolk system of the New England

states in the period before the Civil War. This was a plan of banking developed by bankers, slightly aided from time to time in their efforts by the law, to insure efficiency and safety in the employment of bank credit on a basis of circulating notes. If bankers since the Civil War had been free to act in accordance with their experience, and had been reasonably supported by the law, there is no reason to suppose that they could not have developed for the whole country equally efficient and successful methods of insuring safety in the use of bank credit based on deposit currency.

INVESTIGATION OF FOREIGN BANKING SYSTEMS

In the investigation of foreign banking and currency conditions, much more attention was given to England, France and Germany because it was believed that business conditions in these countries were more nearly like our own. Of the 9,000 pages in the publications devoted to material relating to foreign countries, over 6,500 deal with conditions in these three countries alone, and of these pages about 4,500 relate exclusively to Germany. It was the opinion of Senator Aldrich, as well as of some other members of the Commission, that the banking system of Germany was of more interest than any other to the people of the United States because the industrial and commercial interests of the German Empire were very largely of the same character as our own. This German material, like that relating to the United States, consists largely of reprints in English translation of books, reports and papers previously published in German. These reprints include the memorial history of "The Reichsbank, 1876-1900," the "German Imperial Banking Laws," the third German edition of Dr. Jacob Riesser's

"The German Great Banks and their Concentration in Connection with the Economic Development of Germany," almost the entire report and proceedings of the "German Bank Inquiry Commission of 1908," a series of articles from the *Frankfurter Zeitung* relating to "The Renewal of the Reichsbank Charter" and a series of "Miscellaneous Articles on German Banking" extracted mainly from the proceedings of the Third German Bankers' Convention. But in spite of the large amount of space given to German material, the publications of the Commission contain no general review of German banking as a whole, an omission which can only be regarded as a defect in the work of the Commission since so much importance was attached to German conditions and experience.

The information relating to English and French conditions is much briefer but also more useful in making a comparative study of American experience. The monographs by Hartley Withers on "The English Banking System" and by R. H. I. Palgrave on the "History of the Separation of the Departments of the Bank of England" are the best of the publications relating to England. Mr. Withers' statement is an illuminating account of the complicated relations of the Bank of England, the joint-stock and private banks, and the accepting houses and discount houses, and the position of all of them in the market.

The most valuable of the publications dealing with French conditions are the "Evolution of Credit and Banks in France from the Founding of the Bank of France to the Present Time" by André Liesse and "The Bank of France in its Relation to National and International Credit."

Some of the best information concerning the operation of the foreign banking systems, and particularly those

of England, France and Germany, is to be found in the reports of the interviews held in the summer of 1908. The replies to questions put to bank officials in these interviews, with respect both to what they said and what they left unsaid, often throw more light on some aspects of the actual working of the foreign systems than anything else published by the Commission. But the information contained in these reports is not so accessible because no attempt was made to analyze and digest it in a systematic manner.

DISCLOSURES AS THE RESULT OF CONTRASTING BANKING SYSTEMS

The things which this extended study of foreign banking conditions emphasizes in contrast with American conditions are:

1. The existence in each country of a central institution, more or less closely related to the government of the country, which serves not only as a government bank but also as a banker's bank and as a bank for the public.

2. The centralization and control of note issue by means of these institutions.

3. The high degree of centralization in general administration and management of reserves in all countries.

The publication of this mass of material relating to foreign banking was one of the most useful services that the National Monetary Commission performed. It made available for our political leaders, banking and financial journalists and the general public, a vast fund of information on banking organization and operation in foreign countries which was formerly known only to expert students of the subject.

It is not easy to estimate the influence which the studies carried on under the direction of the National

Monetary Commission had in shaping its conclusions concerning the defects of our banking system and in devising the necessary measures of reform which were finally submitted to Congress in the form of a report and a bill at the beginning of 1912, three and one-half years after the initiation of the Commission's work. A large portion of the publications of the Commission were issued in 1910 before anything definite was known of the plan of reform to be recommended. In January, 1911, Senator Aldrich personally gave out what he described as a "suggested plan of monetary legislation."

In substance this plan was an elaborate central bank scheme to be owned and controlled by the banks of the country with due representation of the government on its official board. This suggested plan does not seem to have been the product of any deliberations of the National Monetary Commission itself, based on the results of the scientific inquiry it had been conducting. No formal meetings of the Commission as an official body were held before the fall of 1911 when a resolution calling for a report from the National Monetary Commission on January 8, following, was introduced in Congress by Senator Cummins of Iowa and adopted.

Although due allowance must be made for the influence of American opinion and European experience, the suggested plan was probably the work of Senator Aldrich, aided by the advice of a few experienced men, among whom Mr. Paul M. Warburg, the New York banker, is commonly reputed to have played an influential part. The proposals made in this plan, which soon came to be spoken of as the Aldrich Plan, were fully discussed for several months in meetings of bankers and business men and in economic,

banking and financial periodicals and newspapers. In October, 1911, the plan was revised and redrafted in the form of a bill and included in the report submitted to Congress on January 8, 1912, as the recommendation of the National Monetary Commission.

DEFECTS IN THE UNITED STATES BANKING SYSTEM

The defects in our banking system which are elaborately summarized in the report of the Commission may, for the purposes of this paper, be briefly recapitulated as follows:

1. The existing banking system provides no effective means for coöperation by banks in crises.

2. It admits of no concentration of the banking reserves of the country for use in times of stringency or unusual strain.

3. The banknote circulation fails to respond, through automatic expansion and contraction, to changing needs of business.

4. The existing system provides no effective agency for facilitating exchanges and transfers of funds between different localities and sections of the country.

5. It affords no means of properly regulating the foreign exchanges and controlling the international flow of gold.

6. Interior communities do not have the benefits of ready access to the central money markets.

7. Existing arrangements lead to the congestion of banking resources in large financial centers stimulating speculation when they are accumulating and unsettling the market when they are withdrawn.

8. The accumulation of government funds in other institutions than the banks results in constant disturbance of bank reserves and further unsettling of the market.

To rectify these evils, the bill recommended by the Commission proposed to incorporate the National Reserve Association of the United States, with a capital of \$100,000,000 to be subscribed voluntarily by national banks, and also by state banks and trust companies under certain conditions. Subscribing banks in contiguous territory were to be grouped in local associations, while these local associations were to be combined into fifteen district associations covering the entire territory of the United States and serving as branches of the National Association. The central association thus organized was to have authority:

1. To take over the note issuing function of the national banks, basing such note issues ultimately on legal money and first class commercial paper instead of bonds, and further, to have the privilege of issuing additional notes, having the same security, on payment of a graduated tax thereon.

2. To rediscount for national banks first class commercial paper maturing in short periods of time.

3. To transfer funds for national banks between the central association and the branches, and between the branches.

4. To receive and hold deposits of subscribing banks and the government, but no private deposits.

To insure safety in reserve management the National Association was required to hold a cash reserve equal to fifty per cent of its demand liabilities. It was also provided that the association should serve as a depository for public funds and as the fiscal agent of the Federal government. No changes were made in the reserve requirements of national banks except that they could count the notes of the central association as well as their deposits with it as reserves.

Probably no economic measure ever

brought before the Congress of the United States received at the hands of political leaders, students of banking and currency problems, and the general public, such comprehensive study and thorough discussion as this one, but in spite of the great amount of time and labor spent on it and the heavy expense incurred, it had no direct consequences whatever in the way of constructive legislation.

POLITICAL CHANGE AND THE ALDRICH PLAN

By the beginning of 1912 the political situation had completely changed and the recommendations of the Monetary Commission were never brought up in Congress for consideration. Many of the men who had been members of the Commission when it was organized had either retired from public life or had been retired in the elections of 1910. During the discussion of Senator Aldrich's suggested plan, which preceded the formal submission of the Commission's findings and recommendations, much opposition of a general character developed against it, not apparently because of any lack of confidence in the soundness of the measures proposed, but because of a general distrust of the men who were primarily responsible for it, particularly of Senator Aldrich who, as chairman, had controlled and directed all the activities of the Commission. Whether or not it was warranted, there was a widespread belief in the country that Senator Aldrich was too close to some of the great business interests whose purposes, it was believed, were not always in harmony with the highest public welfare. In view of this attitude of the public it was not unnatural that the new party leaders in Congress should decline to look for guidance in the work and findings of the National Monetary Commission.

THE RESERVE ACT AND THE MONETARY COMMISSION'S WORK

The extent to which the framers of the Federal Reserve Act drew upon the work of the National Monetary Commission has been a matter of some interest. At the time the Act was under discussion many people regarded it as nothing but a copy in large part of the Aldrich Plan, but there were no substantial grounds for such a claim, although the two projects were similar in many of their fundamental provisions. In describing the legislative history of the Federal Reserve Act some months after its passage, Dr. H. Parker Willis, who was the expert of the House Banking Currency Committee while the bill was being drafted, makes the following statement concerning its origin:¹

The Federal Reserve Act is the product of a lengthy course of development and has grown gradually out of the discussion and analysis of the past twenty years. It is not drawn, even largely, from any single source, but is the product of comparisons, selection and refinement upon the various materials, ideas and data, rendered available throughout a long course of study and agitation. Many bills embodying the same general line of thought that now finds expression in the new act have been offered in Congress.

All of this might be said also, with equal truth, of the Aldrich Plan itself. Certain it is, that the fundamental principles underlying the essential provisions of both measures were well established in European and American banking theory.

The investigations of the National Monetary Commission were limited to the field of banking and bank currency although the scope of the instructions given the Commission by the law would have permitted a wider range

¹ *American Economic Review*, Vol. IV, p. 13.

of activities. Many students thought at the time that it was a good opportunity to amend some of the other serious defects in our monetary system. Since the beginning of the Civil War, our money had become the most heterogeneous and complex of any in use by the great nations of the world. Besides the gold basis, it included several different types of fiduciary money in large amounts with complicated machinery for maintaining them at a parity with the standard. A general reform of our banking system and bank currency was regarded by many as furnishing the best opportunity to secure a final solution of the greenback and silver questions, but the National Monetary Commission avoided these issues as did also the framers of the Federal Reserve Act.

CURRENCY COMPLEXITIES PERSIST

Today, it is a serious question whether or not the addition of the Federal Reserve notes to our monetary circulation, without any material change in the amount of national bank notes or the other forms of fiduciary money in use, has not increased the complexity and difficulties of our monetary system without improving its efficiency as an instrument of economic welfare.

Between 1913 and 1920 the United States passed through a period of inflation that exceeded in its extent anything in our previous history. Some of this was due to our large acquisitions of new gold, but far more of it was due to the release of gold from bank reserves, made possible by the issue of Federal Reserve notes when the reserve requirements under the Federal Reserve Act were changed to their present form by the amendment of June, 1917. After this change in the law, expressions of gratification over the great economy of money that

would be effected thereby were very common. But it is a strange economy of money that results in inflation! When the history of some of the provisions of the Federal Reserve Act and its amendments comes to be written, the judgment will be that they were inflationist legislation and that their enactment added still others to a long list of monetary errors into which the country has fallen.

SOME UNLEARNED LESSONS

While the National Monetary Commission devoted a large amount of attention to the organization and working of the foreign banking systems, it neglected some aspects of those systems, a better understanding of which might have led to a clearer conception of the true defects of our own systems and of the best means of correcting them. Perhaps the most significant feature of the great foreign systems, according to the studies of the Commission, is the high degree of centralization that exists in control and management. But while the influence of the great central institutions in securing this centralization is strongly emphasized, no emphasis is laid on the effect of extreme concentration in foreign banking due to the widely extended system of branches. A relatively few great companies or corporations, including the central banks, control the business of banking in England, France and Germany. This control is exercised from central offices, usually located in the financial center of the country. This is an important, distinguishing feature of European banking as compared with our own.

In the United States much praise has been conferred on the Canadian banking system, but the chief difference between it and our own lies in the fact that Canada has relatively few

banking corporations with many branches widely scattered. Between 1900 and 1912 about 15,000 new banks were organized in the United States. This meant 15,000 new boards of directors and probably as many new conceptions of what constitutes sound bank policy and management. The existence of our vast number of independent institutions needs only to be mentioned to make it clear that no scheme of coöperation among banks yet devised in this country will give the degree of centralization in control and management that has been attained under the foreign branch systems.

SUCCESSFUL BANKING PRIMARILY A QUESTION OF ADMINISTRATION

Another aspect of this subject is also of vital importance. If there is any one lesson that the study of European experience enforces, it is that successful banking is more a question of administration than of law. As Hartley Withers says, "Good banking is produced, not by good laws, but by good bankers." An important consequence of the extreme concentration in foreign banking is that it brings the best banking talent into positions of responsibility and control. No doubt our best bankers are the equals of the best European bankers but our type of banking does not bring them into positions where they can exercise complete control over the banking business of the country.

The apparent control of the flow of credit in the leading European countries through the manipulation of the discount rates of the central banks, is another feature of foreign banking which has always been in sharp contrast with our own practice and which we have tried to imitate in our banking reform. The studies of the Monetary Commission furnish no satisfactory

explanation of the true nature of this control and how it is exercised. The impression is often gained that the bank rate determines the market rate, but it would probably be just as true to say that the market rate determines the bank rate. When Lord Avebury, partner of Robarts, Lubbock and Company, was asked concerning the extent to which the bank rate governed their loan and discount transactions, he replied, "The bank rate generally is an expression of the market rate." The truth is that the market rate is a competitive rate in the determination of which the competition, actual or potential, of the Bank of England with the other banks is always a factor.

INFLUENCE OF BANKING COMPETITION

The influence of competition is more clearly seen in the operation of the French system than in that of England. In replying to a direct question concerning the competition of the Bank of France with the other banks, M. Pallain, the governor of the Bank of France, said, "On certain points there may be competition, and it is on account of this salutary competition that wherever a branch of the Bank has been established the rate of discount has been perceptibly reduced, in the interest of commerce."

The fact is that the control of the flow of credit in these countries is a competitive one. The central banks are not only bankers' banks and government banks; they are also public banks and compete with the other great centralized institutions for a share of the banking business of the country. Their relations to their governments, their prestige, and the fact that their managers think not only of profits but of the national economic welfare, places them in a strong competitive position and enables them to exercise

an influence much out of proportion to the amount of business they do.

There has been much discussion recently of the discount policy of the Federal Reserve Board and the control of the flow of credit under the Federal Reserve System. The charges of banks to their customers have not been materially affected by the manipulation of the rediscount rates. The

explanation is that the Federal Reserve Banks are banks for banks and banks for government and not, at the same time, public banks in the true sense of the word. They cannot exert the competitive influence against the other banks that the foreign central banks exert. They are not in fact in the market and cannot, in consequence, share in market control.

The National Citizens' League

A Movement for a Sound Banking System

By HARRY A. WHEELER

Vice-President, Union Trust Company of Chicago

AS a result of the panic of 1907 the business men of the country became greatly concerned for the commercial safety of the future. At the annual meeting of the National Board of Trade, held in Washington on January 25, 26 and 27, 1910, the subject of monetary reform was discussed and the following resolutions were unanimously adopted:

Whereas, We assume that a plan for the revision of our currency system will be formulated after the National Monetary Commission has made its final report; and

Whereas, A revision of our currency system upon a permanently sound and scientific basis is of vital importance to all interests and should be accomplished as soon as practicable;

Resolved, That the National Board of Trade favors the adoption of a currency system which will be based upon the following fundamental principles and insure the following results:

First—Be absolutely fair to all interests and to all localities;

Second—Insure at all times an adequate supply of properly safeguarded currency;

Third—The volume of said currency to automatically expand and contract in response to the normal demands of the manufacturing, commercial, agricultural,

and other legitimate interests of the country;

Fourth—Said system to be absolutely free from domination or control by political or any other favored interests;

Resolved, That the National Board of Trade calls upon all its constituent bodies to carefully study the fundamental principles of banking and currency, in order to intelligently aid the enactment of such legislation as will best conserve the interests of the entire country.

The National Board of Trade determined to devote one day in connection with its annual meeting in 1911 to a Business Men's Monetary Conference. January 18 was set aside as "Monetary Day." Two hundred selected commercial bodies were to appoint special committees to make a careful study of the banking question. Each organization was requested to submit its conclusions and recommendations to the National Board of Trade at least one month before the meeting and to send a representative to the meeting, to be held in Washington beginning January 17, 1911. The invitation met with a hearty response on the part of the commercial organizations throughout the country and a large number

of delegates participated in the conference.

The Business Men's Monetary Conference, under the chairmanship of C. Stuart Patterson of Philadelphia, adopted resolutions which ultimately led to the creation of the National Citizens' League. By these resolutions, the chairman of the Conference was authorized to appoint a committee of seven to organize a "Business Men's Monetary Reform League," with headquarters in Chicago and branches in the principal centers of the country, whose object should be to conduct a comprehensive campaign of education in behalf of some kind of national reserve association. It was agreed that the delegates to the Conference should endeavor to enlist the active aid of the commercial bodies they represented.

Acting on the authority of these resolutions, a committee was appointed composed of: C. Stuart Patterson, of Philadelphia, James J. Storrow, of Boston, Paul M. Warburg, of New York, Irving T. Bush, of New York, George D. Markham, of St. Louis, Fred W. Upham, of Chicago and Harry A. Wheeler, of Chicago. This committee was called into conference in Chicago on April 24, 1911. The committee was unanimous in its opinion that the responsibility of creating a national organization should be left with the business men of Chicago, who should conduct a nation-wide campaign from their city.

On April 27, 1911, a conference was called by the committee at which were present about fifty of Chicago's foremost business men, representing both the commercial and the financial field. This conference, after careful deliberation, agreed to accept as a duty and privilege the responsibility of conducting the campaign from Chicago as a center.

The new movement was initiated by the Chicago Association of Commerce. A joint meeting of the Board of Directors and the Executive Committee of the Association was held on May 29, and took action by passing the following resolution:

Resolved, That the Chicago Association of Commerce recognizing the distressing effects of panics on trade, capital, and labor, the consequent need of a sound banking system in the interest of all the people in the country, and the suggestion made for the creation of a National Reserve Association, hereby requests John G. Shedd, Marvin Hughitt, Graham Taylor, Harry A. Wheeler, B. E. Sunny, Cyrus H. McCormick, Julius Rosenwald, Charles H. Wacker, Frederic A. Delano, John Barton Payne, A. C. Bartlett, A. A. Sprague, J. Laurence Laughlin, John V. Farwell, Clyde M. Carr, Fred W. Upham, F. H. Armstrong, and Joseph Basch to form a National Citizens' League, the object of which shall be to give organized expression to the growing public sentiment in favor of, and to aid in, securing legislation necessary to insure an improved banking system for the United States of America.

Acting under this authority, "The National Citizens' League for the Promotion of a Sound Banking System" was organized and a certificate of incorporation was granted by the Secretary of State under date of June 6, 1911. Article 2 of the certificate of incorporation is as follows: "The object for which it is formed is to give organized expression to the growing public sentiment in favor of, and to carry on a campaign of education for an improved banking system for the United States of America." In organization and in operation the Citizens' League was at once made national.

The Chicago Association of Commerce only accepted a responsibility imposed upon it by the other commercial bodies of the nation to take the initiative in the conduct of a campaign

to which their support had been pledged. The only part taken by the Chicago Association, as such, was to launch the new League. This done, it surrendered all control into the hands of the Board of Directors of the League.

In April, 1913, pursuant to a call from the President of the United States and his Secretary of Commerce, the Chamber of Commerce of the United States was organized. It became the successor to the National Board of Trade and, recognizing its relation to the subject of monetary reform, established a close contact with the Citizens' League.

The first Annual Meeting of the Chamber of Commerce of the United States, in January, 1913, dealt with the problem as of first importance to the new incoming administration and instructed its Board of Directors to present the matter to the President-elect. In February, 1913, the directors carried into effect the mandate of the Annual Meeting by the following resolution:

The Chamber of Commerce of the United States of America believes the present moment to be one of grave import to banking and currency legislation. The country has been profoundly stirred by the discussions of the past two years. The defects of our present system are generally understood to constitute a menace, both to our domestic and to our international trade. The business men of the country should not again be exposed to the rigors of another such stringency as followed the large crop of 1912. The expected changes in our tariffs and the financing of another crop in 1913 make imperative immediate action by Congress. Moreover, it is apparent that the presentation of a sound measure to Congress would crystallize behind it the support of the business and banking interests of the country.

Therefore be it Resolved, That the Board of Directors of the Chamber of Commerce

of the United States of America, acting under instructions unanimously voted by the convention of January twenty-first to twenty-third, 1913, urge upon the Banking and Currency Committee of the House of Representatives the early submission to Congress in extra session of a measure which will overcome the difficulties from which we are suffering; upon the Senate, its prompt consideration of such measure at the extra session; and upon President-elect Wilson, his cordial and earnest support in favor of early and complete legislation.

And be it further Resolved, That a copy of this memorial be sent to President-elect Wilson and to Honorable Carter Glass, of the Banking and Currency Committee of the House of Representatives.

A standing Committee on Currency and Banking was also appointed to press upon the Administration the necessity for early action, to follow legislative development, and to prepare a report for subsequent submission to the membership through referendum, as provided in the rules.

This committee was composed of Wallace D. Simmons, St. Louis, Chairman, John W. Craddock, Lynchburg, Virginia, Irving T. Bush, New York City, Edmund D. Fisher, New York City, Edward D. Page, Oakland, New Jersey, Joseph French Johnson, New York City, J. Laurence Laughlin, Chicago, George A. Mahan, Hannibal, Missouri, William A. Scott, Madison, Wisconsin, William George Bruce, Milwaukee, Wisconsin, J. M. Miller, Jr., Richmond, Virginia, Allen Cucullu, Lynchburg, Virginia, John V. Farwell, Chicago, Edmund D. Hulbert, Chicago. It completed its preliminary work in August, 1913, and sent to referendum a report on pending legislation with recommendations for amendment in keeping with the principles put forward by the National Citizens' League.

The League, having completed the

work for which it was organized, formally requested the Chamber of Commerce of the United States to pursue the subject through its legis-

lative stages and disbanded; the Chamber, through its Committee, followed the matter closely until its "Federal Reserve Act" became a law.

The Educational Campaign for Banking Reform

By A. D. WELTON

Continental and Commercial National Bank, Chicago

ORGANIZING the National Citizens League in 1911 was no less a task than organizing the country. It was the final step, outside of political declaration and legislative action, to bring about a demand for the reform of the nation's banking laws. The havoc of the last panic had been wrought. Emergency legislation in the form of the Aldrich-Vreeland Act was on the Statute Books. The Monetary Commission had junketed, experted and ruminated and Senator Aldrich was working on a reform proposal.

From these statements it might be gathered that public sentiment had at least begun to crystallize; that the subject of all this discussion and effort was nearing the point of issue and action. Nothing was farther from the truth. There was no popular comprehension of what it was all about. Panic meant only a lack of currency. Newspaper writers were miles at sea. Politicians were floundering in darkness. Practical bankers were looking to their few leaders for guidance. The economists, however clear their theories, were blinded by traditions, and precedents of long standing. There was a dominant desire for a change but any suggestion of a practical plan raised a clamor of hostility to centralization, the great political bugaboo.

The persistence of political rancor found a new demonstration every

time a central bank or the centralization of banking power was mentioned. The traditions of the Democratic party stood as strongly in this respect as when Andrew Jackson and Nicholas Biddle fought over the Second Bank of the United States eighty years before. The mention of asset currency roused the smoldering fires of greenbackism and free silverism. It was plain that many people cherished the belief that issuing currency was a sovereign power of the government, and Mr. Bryan was present to insist that such was the case.

Every time the question of currency had come up for popular consideration in the three preceding decades, the believers in soundness as wrought by a single gold standard had been on the defensive. They merely prevented their enemy from doing something vicious. The one constructive bit of legislation was the Gold Standard Act of 1898. That followed the affair of 1896 as the Aldrich-Vreeland Act and the appointment of the Monetary Commission followed the panic of 1907.

EDUCATION A FORMIDABLE UNDERTAKING

All the studies of the Commission pointed to the necessity of a plan for banking coöperation, for mobilizing reserves, for making both currency and credit elastic, and for creating a discount market. It was a formidable

enough undertaking to make any considerable portion of the people understand these things. It was a much larger one to make a considerable portion of them unlearn the financial follies they had been taught.

For this undertaking the teachers were not many. It was necessary to train teachers. The bankers were of little assistance in this way. Very few of them understood the science of banking, however versed they might be in the art of it; fewer still were competent to teach the economics of money. Moreover, the bankers were under suspicion. Had they not defeated Mr. Bryan in 1896 and subsequently and also subsequently? Mr. Bryan had frequently testified to that fact.

Finally, Senator Nelson W. Aldrich was Chairman of the Monetary Commission. For years he had been in a conspicuous position of leadership. His name was synonymous with everything abhorrent to progressive thought. In the public mind he was first friend of the trusts, advocate of special privilege, the defender of Wall Street and ally of the money devil. Politically, it made no difference that the Senator from Rhode Island had worked hard for years to equip himself for the task now on hand. It was of no moment that his great ambition was to give the United States a sound banking system or that his devotion was complete and unselfish. He was a popular target for editorial anathemas and anything emanating from him must be bad because of its origin.

In June, 1911, approval of a plan for a new banking system meant approval of Aldrich. The National Citizens' League came into existence under a handicap.

The "Money Trust" was an active monster of that day also. It was an indefinite something which could be

charged with all kinds of crimes and would plead to no indictment. There were two "money trusts" in fact—one that the politicians created out of their vivid imaginations for their own private uses, and another, defined as a "community of interest" among powerful bankers, created by a defective and inadequate banking system. The imagined "Money Trust," linked with a plan to reform the banking and monetary system, became much more imposing as a political spectre. Such a "Money Trust" must necessarily have impious designs, and what more natural than it should seek to have the banking laws remodeled to fit its own purposes!

Here was another barrier the League had to take.

POLITICAL AND PARTISAN COMPLEXITIES

Another circumstance lets in light on the difficulties that lay before this economic missionary. Republicans had passed the Aldrich-Vreeland law and planned the work of the Monetary Commission. Republicans had planned to drive through a new banking act. But a new Congress had been elected with a Democratic House. There were even predictions that the next president would be a Democrat. Wisdom forbade that the League have even a remote appearance of partisanship. As a matter of fact the manner of its organization made partisanship impossible but it was frequently charged in the first months that this was "the million dollar organization formed to put over the Aldrich banking scheme."

It is unnecessary to go farther into the conditions of the day to show that the League had a large task and that it would have to justify itself by performance if it was to survive and succeed.

EARLY INVENTORY OF THE LEAGUE'S WORK

It succeeded so well that in March, 1912, it took account of itself as follows:¹

The campaign for banking reform has been carried into 44 states. The National Citizens' League has now 46 organizations—one in each of 43 states, two in California, and the German section with headquarters in New York City. The extension of this organization work reflects the progress of the sentiment for an improved monetary and credit system.

The League came into corporate existence in June, 1911. It is a non-partisan organization. It has no affiliations with any class or any interest. Among the 1,500 officers of its branches and its increasing thousands of members, men engaged in manufacturing, merchandising and agricultural business are in the great majority. The business element is preponderant. The League and its campaign have been indorsed by resolutions adopted by 68 boards of trade and associations of commerce and similar organizations.

There is reason for this preponderance of business men. The League had its origin at a meeting of the National Board of Trade in Washington. The business organizations represented there felt that they should have a voice in the question of improving anything of such vital interest to them as the monetary system.

C. Stuart Patterson, of Philadelphia, was made chairman of a committee appointed at that meeting which later conferred with the Chicago Business Men's Monetary Reform League.

The Chicago Association of Commerce volunteered to launch the new organization and requested the present Chicago Executive Committee to undertake the work. Thus the National Citizens' League came into existence.

The astonishing feature of the progress of the League is that it has met practically no opposition. This is undoubtedly due to the fact that its work has been wholly educative. It has indorsed no

particular scheme of reform. It deals in concrete plans only by way of illustrating the great general problems of efficiency of bank reserves, a discount market, independent banking, an elastic currency and credit system and adequate banking facilities. Its belief is that when the people come to have an understanding of the fundamental requisites of an efficient monetary and banking system the legislation will take care of itself. With the fundamentals understood, as they will be, the working out of the details may be left to Congress. How the application is made, or what the system is called are matters of no importance. Who frames the measure finally adopted or after whom it is named, are equally inconsequential.

RECRUITING THE FORCE OF EDUCATORS

It is not surprising that an organization so elaborately born should have a name as elaborate. Almost the first error was in this selection. The National Citizens' League for the Promotion of a Sound Banking System was the cumbersome heritage of the men who later assumed the work of giving the scheme publicity. As the economists—the professors of political economy—were about the only ones who could write on questions of banking, they were drafted early. The work of creating organizations in the various states was speedily got under way. Pamphlets on pertinent subjects were produced and printed. Speakers—mostly economists—were recruited. A declaration of the principles the League indorsed was made. Large sums of money were spent. Later, and not much later, the difficulty that always confronts such organizations, was encountered. It was necessary to expend time and energy in raising funds to support the work.

The publicity work was conventionally organized. Pamphlets, whose distribution called for mailing lists,

¹ *Banking Reform Magazine*, March 16, 1912.

were a matter of course. Membership in the League at \$1 a year carried with it all published matter and an obligation to spread the gospel.

The state and local organizations, in some cases self-supporting but always with a paid secretary, supplied names for the mailing lists and often did the distributing. The entire list of League officers and directors would make a business blue book. Local secretaries were chosen, so far as possible, because of some familiarity with publicity methods. There was no rule. In some states publicity was the only medium used. In others, dependence was placed on meetings and speakers. In still others, local business organizations were enlisted. This was all ordered by expediency or the desires or peculiarities of the local officials.

The undertaking of the central office in Chicago was to guide the thought of every member of the League, every officer of each state organization. As loosely joined as the organization was, a single policy and harmony of purpose were indispensable.

The marvelous and general lack of familiarity of the general run of bankers and business men with monetary problems was of great assistance. They had to take what was given them because they had practically no other sources of information. The old sources of monetary information were dried up. Previous demands for monetary reform were directed at the currency and the quantity of it. Financial progress in terms of elastic credit and bank reserves was unprecedented and, considered by itself, strikingly logical.

This is not to say that the old "isms" did not outcrop at frequent intervals and in unexpected places. The local secretaries watched carefully for such outbursts and they

were carefully met and countered. Some of these were temporarily serious but usually they were ludicrous. All were treated alike. If the opponent of banking reform or the advocate of something unsound found space for his outpouring in a newspaper, the same newspaper was supplied with other material, often through a local League representative. If the first newspaper refused publicity, the rival paper was tried. If both were recalcitrant a local mailing list was compiled and used.

MONTHLY MAGAZINES THE GREATEST PUBLICITY MEDIUM

The League's monthly publication, *Banking Reform*, was used in most cases. It was the uninvited visitor to every newspaper office in the country. It could be, and frequently was, used to meet some special opposition. When a weekly paper in an obscure county of California assaulted the Monetary Commission, the League, banking reform and everyone interested in it, a special edition of *Banking Reform* was printed and sent to everyone in the county. It was effective.

When a venerable, retired county judge in Texas unlimbered a page of heavy artillery in the county seat paper on the sacred and sovereign right of the government to issue money, the case could not be ignored. The rhetorical flood was broken up, the facts extracted and a reply written and sent to the paper. It was published—two-thirds of a column. The venerable judge countered with another solid page. The reply was short and pointed. The judge was unwittingly doing well for the League. He became interested in the new proposition. He wrote to headquarters for pamphlets. A month later he graciously acknowledged his conver-

sion, sent in a dollar and joined the League. This incident had no repetition. The devotees of greenbacks, free silver and the "sovereign right of the government" were, and are, irreconcilable but they were not troublesome for long. Their attack lacked versatility and mere continuity made it tiresome.

From the viewpoint of real publicity the monthly, *Banking Reform*, was the mainstay of the publicity campaign. It was the messenger to the press. It permitted repetition and reiteration, which were necessary to give editors familiarity with what was to them a new terminology. It was slow and disheartening work for many months. Once the fervor of early political controversy had cooled and political economy was the order, publicity results were scant. In the central office clippings were garnered with care and treasured in the files. One of the first months of effort brought only seven. The next month there were none, which was interpreted to mean that the seven were accidents or incidents of editorial good nature.

A TIME WHEN POLITICS HELPED

Politics again intervened to give a stimulus. The other side of the League's organization was at work. State conventions of the political parties were ahead. The League's text book, *Banking Reform*, came from the press. The book was distributed widely to members, whose number it was instrumental in increasing greatly, and was extensively reviewed. The book stimulated interest in the magazine for which the demand also increased. The clipping agency employed began to send in bulkier packages. These could now be read but they were no longer filed. When the Alabama Democratic convention had declared for "a democratic and non-partisan re-

vision of our antiquated banking laws" and demanded the creation of an "elastic note and credit system," the turn came. The politicians were becoming familiar with the terminology.

In the platforms of state conventions of both parties—and they followed rapidly—there were phrases and terms which bespoke familiarity with the League's literature. Naturally these platform utterances were commented on by newspapers everywhere. The comments were almost universally favorable. The terminology in this field began clearly to indicate familiarity with banking reform.

In June, 1912, came the great national conventions. Both Democrat and Republican platforms had planks on the monetary question. Neither one of them meant anything in particular. The Republicans called attention to the party's historic stand for a sound currency, and the Democrats smashed away at Wall Street and the "Money Trust." The League's publication said that banking reform "is a political question only so far as its solution requires political attention in the highest sense of the term. There is no chance that a Democratic scheme of reform will be better than a Republican scheme because it is offered by Democrats, or that a Republican scheme will be superior because it is offered by Republicans. In banking methods neither party is at an advantage over the other because banking is not a matter related to their differing conceptions of popular government."

Committed to banking reform and not to politics or party, the League's purpose was to keep, so far as possible, the question from assuming a partisan aspect.

With the political phase formally entered, however, the publicity campaign became more difficult in one

aspect and much easier in another. There was no longer difficulty in having matter accepted and printed by all kinds of publications. It was in constant demand. The problem was to hold discussion to the essentials. Clippings now came in huge bundles and were dumped summarily into waste baskets. No one had time to look at them. The venerable judge from Texas might have flashed his message in fire on the sky and no League official would have heeded, for banking reform had passed from the stage of a vague request to a demand for speedy political action. It was no longer a question of a new banking law, but what kind of new law.

ENUNCIATION OF FUNDAMENTAL PRINCIPLES

In September, 1912, the League stated the principles it believed should underlie a banking bill. The statement gave as the reasons for banking reform:

To prevent the recurrence of money panics.

To provide for seasonal and special demands for currency and credit.

To insure more uniform and steady interest rates throughout the country.

To divorce commercial from investment banking.

To strengthen our international credit.

To establish higher standards of banking.

It is remarkable, perhaps, in the light of current discussions that in 1912, *Banking Reform* said:

The National Citizens' League believes that these reforms in our banking and currency system can be best brought about by the formation of a coöperative association of all classes of commercial banks, with restricted powers, managed by a board of bankers, Federal officials and other citizens. The Association should not be a money-making institution and all earnings beyond a fixed rate should

go to the national treasury. This association should:

Hold the final banking reserves.

Act as fiscal agent of the government.

Rediscount standardized commercial paper for banks at published rates of discount uniform over the country.

Issue circulating notes secured by gold and commercial paper.

Deal in gold and foreign exchange.

Establish foreign agencies.

It must be remembered that this statement was made two months before Woodrow Wilson was elected president and eight months before Congress began to debate the Glass bill.

The League's principles were carefully drawn very early in the campaign. They took no account of partisanship, except to guard against it, as generally befitted an organization of business men bent on securing an economic reform. The principles were:

1. Coöperation, not dominant centralization, of all banks by an evolution out of our clearing-house experiences.

2. Protection of the credit system of the country from the domination of any group of financial or political interests.

3. Independence of the individual banks, national or state, and uniform treatment in discounts and rates to all banks, large or small.

4. Provisions for making liquid the sound commercial paper of all the banks, either in the form of credits or bank notes redeemable in gold or lawful money. Legalization of acceptances and time bills of exchange in order to create a discount market at home and abroad.

5. Elasticity of currency and credit in times of seasonal demands and stringencies, with full protection against over-expansion.

6. The organization of better banking facilities with other countries to aid in the extension of our foreign trade.

In the beginning, these six principles were the guide in all publicity. Their amplification came when the

final political stage was reached as noted above.

The so-called "Money Trust" investigation was an incident which received only incidental attention. In an educational way it had no significance. What is known as Wall Street never showed hostility to the League; it gave much financial assistance and seemed quite unconcerned over the prospect of decentralized bank reserves.

ATTITUDE OF BANKERS AND OTHER ORGANIZATIONS

Bankers and bankers' organizations were always helpful and friendly. They were never keen for the League's principles and, as a rule, they were collectively and individually more interested in the probable effects of any change in laws on their established method of operation. In this respect they often clashed with the business men whom the League represented but they always admitted the need of change in the banking scheme.

As the campaign progressed other forces came in to give assistance and often to interfere. Usually these organizations made plans. Of plans for a new banking system there was a myriad. They came up from all sides. Everyone seemed to have a plan. The League never had one. In that lay its strength.

In September, 1921, Woodrow Wilson spoke of the need for a new banking law in his address accepting the Democratic nomination for the presidency. Soon after his election, and that of a Democratic House and Senate, it became obvious that banking reform legislation would be a Democratic action. This political shift made it advisable to give unusual attention to the South because seniority would place southern Demo-

crats in the important positions in House, Senate and elsewhere.

The new President's message on banking reform preceded action in Congress. That is another story. During this period of many hearings by the banking and currency committees the publicity was continued as actively as ever. As the League was concerned only with principles, and not with administrative forms, its printed matter gave no heed to the latter except for informative purposes. The magazine had naturally become the dependence of many thousands of persons for such information. Many newspapers looked to it for an interpretation of the news developments. Its influence was wide. Reading of the news and comment on the proceedings in Congress made the extent of this influence clear and certainly the members of Congress were not immune to it.

When the Glass bill had passed the House, it became apparent that the League's work was nearly done. It had undertaken only to lay a foundation for legislative action. It is true its organization work had been carried into practically every congressional district. The gospel of banking reform was carried most effectively to every congressman from his home. But when the Glass bill had become the Glass-Owen bill and the Senate had it under consideration, the League began to wind up its affairs.

CLOSE OF THE CAMPAIGN

In the last issue of *Banking Reform*, October, 1913, it was said:

The League never undertook to participate in the actual work of legislation. Article 2 of the certificate of incorporation reads:

The object for which it is formed is to give organized expression to the growing public sentiment in favor of, and to carry

on a campaign of education for, an improved banking system for the United States of America.

Of the success of the League's campaign there is no doubt. It is evidenced by the fact that for more than two years the question of monetary reform has been growing in the public mind until today it is the question of paramount political as well as economic importance. It has occupied the latter position for many years, but it was not until the League's work was well under way that it was lifted out of classification with the impenetrable mysteries to that of a great, and finally the paramount, public issue. One Congressman reduced the situation to terse form when he said, "No League, no bill."

The League has distributed literally millions of pamphlets. It has been the means of supplying literally millions of columns of matter to newspapers. It has supplied speakers for thousands of meetings. But the indirect results of its efforts have been more momentous. It brought interest in the question of monetary science to an acute stage. It challenged every argument founded on a false conception of monetary economics. It supplied material which made editorial work easier. It translated technicalities into simple language. It stimulated thought and discussion. It freed thousands from the thrall of half a century of false teaching.

The fact that the Glass bill is not perfectly satisfying is in nowise attributable

to failure on the League's part. It has been stated many times in these columns that the machinery by whose operation the principles enunciated were to be given operation might assume any one of many forms. The Monetary Commission evolved one form, the Glass Committee evolved another. Neither is perfect in anticipated operation. It is doubtful if any machinery will be perfect until made over after practical test. But either plan has obvious merits and forms a basis on which can be built up an operating success.

The Executive Committee of the League feels, therefore, that the work of the organization has been practically completed and success has been achieved. It will retain its corporate entity and maintain its organization intact against possible contingencies until results are written in the statute books. But unless the unexpected happens, the League will rest content that the question of banking reform and its satisfactory solution is in the hands of the national legislature. Over this body it has no control, and seeks none, as it has had none anywhere save what was based on logic and built up on adherence to proved principles of monetary economics.

As a final testimony of the efficiency of the League's campaign, it may be pertinent to record that the terse statement, "No League, no bill," was made by the Honorable Carter Glass.

The Federal Reserve Act in Congress

By H. PARKER WILLIS

Columbia University

MUCH has been vaguely or erroneously written of the early history of the Federal Reserve Act and there is already a widespread misunderstanding regarding it. Some part of this misunderstanding is due to the fact that much of the work on the Act was done in committee or in caucus or in private conference. To review the whole his-

tory of the measure would be a task of lengthy detail. The following article is not intended to enter into any such elaborate review but to set forth in compact form the chief facts, without controversial discussion. What it offers is merely a consecutive outline of the history of the Federal Reserve Act during its formation and subsequent

discussion in Congress. It will afford, however, as definite an historical account as is possible within a very brief space, of the various stages through which this measure passed.

INCEPTION OF MEASURE

The inception of what afterward became the Federal Reserve Act grew out of the action of the Banking and Currency Committee of the House of Representatives in authorizing, during the spring of the year 1912, an investigation into currency and banking conditions. This authorization led to the organization of the Banking and Currency Committee in two parts, or sections—the one entrusted with an inquiry into what was at the time known as the “Money Trust” and the other assigned the duty of studying and recommending legislation designed to promote banking and currency reform. This second subcommittee was organized under the chairmanship of the Honorable Carter Glass, who had been for several years a member of the Banking and Currency Committee, and its first active work was undertaken at about the opening of April, 1912. At that time this subcommittee retained technical assistance, and instructions were given to make a general survey of pending banking and currency legislation, including especially the proposals of the National Monetary Commission which were embodied in what had come to be known as the Aldrich bill.

Such a survey of pending and proposed legislation, both recent and earlier, was completed and placed in the hands of the subcommittee during June of 1912. An informal discussion of the question of what lines should be followed, ensued. As a result of this informal discussion, it was agreed to prepare a tentative bill which should be based essentially upon the past

experience of the banks of the country in organizing clearing house associations. The conclusion was definitely reached that a central bank of issue and deposit was not desirable but that, instead of this, a district type of organization, in which the banks of the country should participate, was to be preferred. It was further agreed that such district organizations ought to be vested with the function of issuing note currency upon what had come to be known as the elastic, or “asset secured” plan. It was further thought that the reserves of the country should clearly be transferred to such organizations and that large functions of examination and oversight of the rank and file of the banks should be provided for.

WORK OF SUBCOMMITTEE

With these very general principles definitely laid down as a basis, a bill was drafted during the summer and early autumn of 1912, and the substance of this bill was informally discussed at meetings of the subcommittee which occurred during November, 1912. At that time agreement was reached that further progress in the development of the proposed bill would not be possible unless the attitude of the incoming administration (the Honorable Woodrow Wilson having been elected President early in November, 1912) could be known. Mr. Glass accordingly addressed a letter to President-elect Wilson informing him generally of what had been done and asking for his views in the matter.

An early reply was received from the President-elect in which he expressed agreement in the thought that a suitable banking measure should be developed at an early date, and a time was set for consultation with representatives of the subcommittee of the Banking and Currency Committee. This date was December 26, 1912, at

which time Mr. Glass visited Princeton where President-elect Wilson was then living.

During the conference on the 26th of December there was laid before Mr. Wilson the substance of the tentative bill already drafted and question was asked as to his opinion regarding the extent to which the bill should go. Particularly was the question raised with him whether the new bill should provide for an emergency or permanent type of banking organization; whether it should provide for local organization or for a central control of some kind; whether reserves should be transferred to the new banking organization and whether new note issues should be provided for. Most of these points had not been considered by the President-elect except in a very general way. He expressed himself, however, as desirous of making the measure a thorough-going, complete banking and currency bill, and was positive in his thought that there should be a central control organization—although he accepted the view already developed in the subcommittee—and that actual banking should be carried on in districts and by local organizations acting more or less independently of one another. He was ready to support the transfer of reserves from existing banks to the new organizations and, in general, granted his support to the idea of complete transformation of the existing banking system.

PUBLIC DISCUSSION OF LEGISLATION

By this time the fact that a bill was seriously under consideration in the subcommittee on legislation had become widely known throughout the country among those who were interested in securing action from Congress. It became necessary to consider the question whether hearings should be given to those who had arguments to

present and views to express and whether it was or was not wise to allow the contents of the proposed bill to become known. On both these points a definite policy was developed as follows:

1. The question of holding hearings had been discussed with President-elect Wilson at Princeton at the meeting already referred to, and he had favored the holding of hearings. It was now determined to make the hearings very inclusive and to send out letters to representatives of labor, to manufacturers' associations, to bankers, to economists and to business men.

2. It was further determined to make public no draft of the proposed bill but to mature it slowly and carefully, especially in view of the fact that action on it could not be expected until after the incoming of the new administration on March 4, 1913. It was, however, determined to make known to persons who had a legitimate interest in the pending measure the principal lines of thought on which the committee was working. Statements on this subject were made from time to time to a variety of inquirers, some of them bankers, some, business men or representatives of their organizations, some, legislators. As a result there was a crop of bills—some published, others never printed but filed with the committee—whose authors sought to put down in writing what they believed to be a plan similar to that favored by the subcommittee and hence presumably likely to become the official plan of the administration.

There was thus a large crop of so-called "original bank bills" in Congress. The Aldrich bill was remodeled by advocates for possible use, free of many objectionable features, and was issued as a revised plan by western students of banking. Other plans were developed in the same way and in

sundry cases the authors of such plans continued to take an interest in the matter after the Federal Reserve Act became public and as it passed from stage to stage, eventually correcting them and bringing them up to date as the Reserve Act itself was perfected in the course of its passage through the different legislative processes. Thus there was at all times during the year 1913 a considerable array of measures whose general thought was the same that had already been developed by the Subcommittee on Banking and Currency, although until such time as the Federal Reserve Act itself became public the terms of the various bills were, of course, widely different both from one another and from those of the Act itself.

During the months of January and February, 1913, the Banking and Currency subcommittee held many hearings upon the plan already laid out and an entirely new redraft of the Federal Reserve Act was made. This redraft had been practically completed at the close of the hearings in February. It differed from the original act chiefly in detail, embodying in one consistent statute the various elements of the plan which had been submitted to President-elect Wilson in the preceding December. It included provision for the transfer of reserves and the issue of notes, for the refunding of government bonds as well as a provision for government supervision and control of the Reserve Banks, although such supervision and control was shared between the government itself and the bankers of the country. This bill also included a provision for the guaranteeing of bank deposits, insofar as the assets of the member banks would permit, and it also contained an elaborate plan for the election of directors in Reserve Banks with the aid of commercial bodies.

After the close of the hearings another redraft was undertaken and was

completed about the beginning of March, 1913. This third main draft contained principally improvements in language and in technique but discarded the plan of guaranteeing bank liabilities and also greatly simplified the method of electing directors.

With the preparation of this plan and the expiration of the old Congress on March 4, the work of the subcommittee was completed and the final draft was once more submitted to President-elect Wilson at Trenton, N. J., where he was visited by Mr. Glass, and the finished work submitted to him. The President-elect again gave to the bill in its revised form a general preliminary approval.

WORK OF THE SECRETARY OF THE TREASURY

Little work was done on the Federal Reserve Act during the month of March, 1913, but at the beginning of April, President Wilson entrusted to Secretary of the Treasury McAdoo the duty of reviewing the measure for the purpose of reporting to him on the subject. The measure was canvassed section by section by the Secretary of the Treasury and a variety of minor changes were made in it. These changes related principally to details of language. Two important changes were, however, introduced during this process. The first was the acceptance of the idea that the notes to be issued by the new banks should in some way be passed upon or approved or guaranteed by the government, while modifications in the plan for the refunding of government bonds were also introduced. It was the thought of Secretary McAdoo that the original funding provision had been unduly unfavorable to the government.

Many of the changes in language proposed in the first instance by representatives of the Treasury were after-

ward cancelled and the original language restored when further study of the draft had convinced the Treasury representatives that the changes which they were at first inclined to introduce had not been well warranted.

One further change of great importance was introduced during this period of the bill's history, although not at the instance of the Secretary of the Treasury. This was the provision calling for par clearance of member bank obligations. There had been a doubt in the minds of the subcommittee whether the introduction of this provision, in addition to the other extensive elements of the measure, would be desirable or not, and it was eventually determined to present the matter to Secretary of the Treasury McAdoo in order to get his thought on the subject.

The "Money Trust" section of the Banking and Currency Committee had in the meantime carried on a lengthy "probe" into banking conditions in New York and had reported that, in no small measure, unsatisfactory conditions there were due to faulty clearing house organization. It had, therefore, recommended certain legislation designed to control clearing houses. Secretary McAdoo was of the opinion that some provision relating to clearing and intended to give the clearance power to Federal Reserve Banks would be desirable as showing that due attention had been paid to the work of the "Money Trust" subcommittee. He accordingly assented in general terms to the plan which was placed before him and which was therefore incorporated into the bill.

ATTEMPT TO SUBSTITUTE AN ADMINISTRATION BILL

Careful study of the Federal Reserve Act as thus drafted, however, led Secretary McAdoo to doubt the wis-

dom of the measure, and he, therefore, proposed and brought to the attention of representative bankers a plan of his own under the terms of which the Treasury would have gone, more or less extensively, into a banking business, with the various subtreasuries as branches. The appearance of this plan, fathered by the Secretary of the Treasury, naturally tended to throw grave doubts upon the prospects of the Federal Reserve Act. About the end of May the whole situation was forcefully brought once more before the attention of the President for his decision.

Meantime a separate and independent bill had been developed by Senator Robert L. Owen of Oklahoma, who had become Chairman of the Banking and Currency Committee of the Senate. President Wilson thus had before him the McAdoo plan, Senator Owen's tentative plan and the draft of the Federal Reserve Act—as well as, of course, a multitude of other bills, drafts and suggestions which had been filed with him by many citizens. After very considerable attention the President determined to hold to his original decision in favor of the Federal Reserve Act and accordingly announced his determination to discard all of the other suggestions which were then before him. In so doing, however, he found it necessary to consult with the so-called Bryan element in the Cabinet which had already been generally advised of the intended scope of the Federal Reserve Act.

As a result of this consultation two further definite changes were made in the bill: the notes to be issued by the several banks were now definitely made liabilities of the United States, while it was determined that the Federal Reserve Board should be exclusively composed of government appointees to be named by the President and confirmed by the Senate. These changes

having been agreed upon, the bill was introduced into Congress in its existing form and thus finally worked out.

Shortly afterward a new House banking and currency committee was appointed with Mr. Glass as chairman. The Glass bill—the completed draft of the Federal Reserve Act—was promptly referred to the Banking and Currency Committee as thus organized and the actual work upon the measure was begun. This work was vigorously undertaken toward the end of June, 1913.

CHARACTER OF MEASURE

It will be observed that the first innovation in the terms of the original measure had come at the instance of Secretary Bryan during late May, 1913. It is interesting, therefore, to know just what the plan was which had been completed for introduction into Congress. Space unfortunately forbids a detailed description. At that time, however, there was prepared for the use, and at the request, of the President, a digest stating the chief content and purpose of the bill. This digest, heretofore never published, is an authentic description of the conclusions tentatively reached up to that time and shows fairly clearly the nature of the original measure. It is accordingly subjoined verbatim:

MEMORANDUM ON SCOPE AND EFFECT OF H. R.—, TO REORGANIZE THE PRESENT BANKING AND CURRENCY SYSTEM.

In H. R. — prepared for introduction by Representative Glass of Virginia it is intended to furnish a comprehensive measure for the attainment of four objects:

(1) Provision of a place for rediscounting commercial paper of specified types.

(2) Provision of a basis for elastic note issues properly safeguarded.

(3) Refunding of outstanding 2 per cent bonds so as not to inflict loss upon present holders.

(4) Provision of machinery for doing foreign banking business.

In order to accomplish these purposes fully it is necessary to (a) repeal certain portions of existing law; (b) rectify various conditions in the present national banking system which are in some cases only indirectly connected with the objects sought; (c) furnish a new class of institutions for the performance of some functions which cannot well be entrusted to existing banks, or at all events can better be performed by others and (d) alter the present reserve system to a very material degree.

The scope of the bill can best be understood by an analytical review of its contents, with reference to sections and paragraphs. This is herewith subjoined.

BASIS OF PRESENT SITUATION

The present banking situation in the United States rests upon the National Bank Act proper as slightly modified from time to time and upon the so-called Aldrich-Vreeland Act (Act of May 30, 1908). Of these acts the latter is completely repealed (Section 1) on the ground that it has never become operative, probably will not become operative except under extreme stress, and was never satisfactory. The National Bank Act itself is modified in numerous essential particulars which will be pointed out from time to time in this memorandum. In a separate measure a general revision of the administrative provisions of the National Bank Act is also provided.

NEW CLASS OF BANKS

Fundamental to the idea of the bill is the creation of a new class of banks (Section 2), to be known as National Reserve Banks. The chief points about these banks are as follows:

(1) Number to be twenty with possible increase later as provided. (Section 2.)

(2) Ownership to be in the hands of the national banks of the twenty districts in which the banks are situated. (Section 2.)

(3) Capitalization to be 20 per cent of the capital of the stockholding banks, one half paid in and one half subject to call. (Section 2.)

(4) Business to be as follows:

(a) Rediscounting of paper presented by

stockholding banks and by other banks under specified conditions, provided such paper grows out of actual agricultural, commercial or industrial transactions and does not run more than a specified number of days. (Section 14.)

(b) Buying and selling government securities, gold and silver bullion and foreign coin, foreign exchange. (Sections 16 and 17.)

(c) Government fiscal operations. (Section 21.)

ISSUE OF NOTES

The bill provides for the maintenance of existing bank notes outstanding so long as their present issuers want to keep them out, and also calls for the establishment of a note issue on a new basis to be put out by the National Reserve Banks. Provision is, however, made for retiring the present National Bank notes at the discretion of their issuers. This plan comprises the following points:

(1) Every national bank would be allowed to continue its note issue exactly as at present. (Section 26.)

(2) It would not, however, be allowed to increase the issue beyond the point at which it stood when the law was passed. (Section 26.)

(3) No newly organized bank would be required to purchase government bonds; hence no new bank would have any note issues. (Section 26.)

(4) Whenever an existing bank retired any of its notes and withdrew its bonds it would lose the right to put out further issues of notes above the amount to which its issue was thus reduced. (Section 26.)

(5) National Reserve Banks would be allowed to issue notes secured in the same way as their other obligations to an amount equal to twice the par value of their capital stock. They would also be allowed to issue additional notes if they desired, equal to the amount of notes withdrawn by the individual banks which might from time to time surrender their note issue privilege in part or in whole. (Sections 23 and 26.)

DISPOSAL OF U. S. BONDS

Recognizing (a) that the present 2 per cent bonds were sold to the banks on the basis of a pledge that they might continue to be used as a basis for circulation, and

that therefore the government is morally bound to maintain their value in a corresponding degree; (b) and that it is desirable to retire the bonds now held behind bank notes and put in their place bonds whose value is sustained solely by their income-paying power, it is provided that:

(1) Banks now holding the bonds may offer these bonds for redemption or conversion into 3 per cent bonds at a rate not to exceed one tenth of their holdings each year. (Section 26.) This would mean that a maximum of about \$65,000,000 a year could theoretically be converted, and the evidence is that that sum would be absorbed without difficulty by investors each year.

(2) At the end of ten years other holders of bonds would be allowed to convert them into 3 per cents. (Section 26.)

(3) As a result of these changes the government would be obliged to increase its interest charge the first year of the new arrangement by an amount not greater than one per cent on \$65,000,000, or \$650,000, while the second year a like addition would be made and so on, until at the end of ten years a possible maximum addition of \$7,300,000 in interest charges would probably have been assumed.

PROTECTION OF NOTES

Fully admitting the necessity of an absolute protection of note issues, the bill seeks to safeguard those for which it provides as follows:

(1) National bank notes are safeguarded at every point by exactly the same elements of protection which exist to-day, none of these being diminished in the slightest degree.

(2) Notes issued by National Reserve Banks are protected by a large gold reserve, by constant close government supervision, and by immediate and prompt redemption. Stringent provisions are made against counting any of these notes as a part of bank reserves, thus insuring their speedy return to the point of origin. (Sections 30, 31, etc.)

(3) All notes are made receivable by the government and are to be received by every bank in the system on deposit at par, without exchange. (Section 23.)

(4) Uniformity in the currency is obtained by making the National Reserve notes identical in appearance and wording with the National bank notes. (Section 23.)

(5) Power to oversee and control the issue of notes is placed in the hands of a supervisory board. (Sections 13, etc.)

GOVERNMENT CONTROL

Overseeing the whole system is created through a so-called Federal Reserve Board, (Section 13) with the following organization and functions:

(1) Board to consist of representatives of (a) National Reserve Banks (b) bank stockholders (c) the government itself. (Section 10.)

(2) Actual working body to be an executive committee of this Board consisting of Secretary of the Treasury, Comptroller of the Currency, and Attorney-General, with four members of the Federal Reserve Board chosen by the latter. (Section 11.)

(3) Board and Executive Committee, as thus made up, to have power to deposit Government funds in National Reserve Banks, to fix rates of rediscount in such banks, to compel any National Reserve Bank to rediscount the paper of any other, and to examine the banks of the system. (Section 13.)

STRUCTURE OF SYSTEM

The effort has been made to "popularize" the control of the whole system of banking thus built up while at the same time preserving a sufficient amount of centralization, controlled by governmental agency, to insure that the whole system shall be responsive to legitimate public demands. The bill is based on the belief that no one should participate in the control of the system unless he is either financially interested himself or chosen by those who are, save insofar as the government steps in to exert the authority of the whole community. With this in mind the system has been developed as follows:

(1) Organization, powers and functions of national banks are left as at present.

(2) National Reserve Banks are incorporated institutions holding Federal charters and in all respects managed like na-

tional banks except as to the election of directors which is provided for as follows:

(a) Banks in every district are divided into five classes according to capitalization. In each class the directors of the banks nominate a candidate for the directorship of the Reserve Bank. These are then voted on (one bank one vote) and a director is chosen for each of the five classes—five in all. (Section 4.)

(b) In the five classes aforesaid bank stockholders vote for and elect a director for each class by a process prescribed in each case making five in all, or with the preceding five, ten. (Section 4.)

(c) The ten men thus named select four others after a prescribed process, eight votes required to elect, and the nominees subject to rejection by the Federal Reserve Board. (Section 4.)

(d) A fifteenth member, to be Chairman of the Board of Directors is chosen by the Federal Reserve Board itself. (Section 4.)

(3) The Federal Reserve Board consists of two members from each district and the three government officials already specified. (Section 10.) It is not an incorporated body, has no banking functions but is supervisory.

(a) One member of the Federal Reserve Board in each district is chosen directly by the directors of the National Reserve Bank of the district. (Section 10.)

(b) A second member of the Board from each district is chosen by the bank stockholders of the district, voting by a prescribed method. (Section 10.)

(c) These members of the two classes referred to choose by ballot four of their own number to join with the government officers already mentioned as the Executive Committee of the Board. These four are designated by the Secretary of the Treasury to hold the offices of President, first and second Vice-Presidents and Secretary of the Federal Reserve Board. (Section 11.)

RESERVES

In the belief that the present reserve system is antiquated and unsatisfactory, that the massing of funds in New York and other financial centers of which so much has been said in recent years, is largely due to

the present reserve requirements of national banks, and that in order to get the real benefit from the system of rediscount which has been proposed as a remedy for many existing evils, it is necessary to base such system upon an actual control of reserves, provision has been made for recasting the present bank reserve system.¹ The plan includes:

(1) Transfer of reserves from existing national banks in reserve and central reserve cities, to National Reserve Banks. (Section 27.)

(2) Spreading out of this process of transfer over a period of fourteen months in order to give as little shock as possible to market conditions. (Section 27.)

(3) Ultimately the establishment of a Reserve System, at the end of the transition period in which so-called country banks will have 15 per cent of reserve (*i. e.* 15 per cent of total demand liabilities) such 15 per cent to be held, 5 per cent in the bank's vaults, 5 per cent with the National Reserve Banks and 5 per cent either at home or with the Reserve Bank; while reserve and central reserve city banks will have reserves of 20 per cent of demand liabilities, of which 5 per cent will be at home, 5 per cent with the Reserve Bank of the district and 10 per cent either at home or with the Reserve Bank. (Section 27.)

(4) The presumed effect of this plan will be to end the placing of reserves with central reserve city banks for use in stock market operations, to keep reserves in some measure at home, and to require speculators to get the funds they need in their operations either by directly borrowing them from persons who hold them and want to lend the cash for that purpose, or else by borrowing from the banks in the places where the operations are to be carried on.

DIVISION OF BUSINESS

The object of the bill is to effect a moderate division and classification of banking business along indicated lines, the net result, presumably, being summed up as follows:

(1) National Reserve Banks will be strictly limited to actual commercial and

industrial transactions evidenced by very short term paper and on rare occasions under carefully prescribed conditions to financial operations protected by collateral. They will also be able to engage in foreign exchange operations, sales of government securities, etc., as already explained.

(2) National banks will be subjected to precisely the same restrictions as at present with a relaxation in favor of a moderate amount of real estate loans by country banks under carefully guarded conditions. (Section 39.)

(3) By a revision of the administrative features of the National Banking Act, provision will be made for close oversight of National institutions with a view to holding them strictly up to the requirements of a legitimate banking business. (Text of bill still to be submitted.)

(4) In order to possess themselves of the kind of paper entitling them to rediscounts, national banks will find themselves obliged to keep a reasonable proportion of their assets in the form of paper eligible for rediscounting, and this will mean very considerable emphasis upon the strictly commercial aspects of the business done by national institutions.

POSITION OF STATE BANKS

It has not been thought wise to permit State banks to own stock in the National Reserve Banks for two reasons:

(1) State banks by the terms of their organization are differently managed and controlled from national.

(2) The laws of the United States differ with respect to liabilities, the collection of debts, and other matters.

Hence the bill has attempted only to provide for giving these banks equal facilities for doing business by establishing the following conditions:

(1) State banks may affiliate themselves with National Reserve Banks by maintaining the same deposits with the National Reserve Banks that are kept by national banks under the proposed act. (Section 29.)

(2) State banks shall in these circumstances be entitled to do business with and get rediscounts from National Reserve Banks. (Section 29.)

¹ Including collections and clearances.

(3) State banks shall be subject to inspection and examination by National Reserve Banks. (Section 29.)

RELATIONS WITH TREASURY

It is believed that the present sub-treasury system is unsatisfactory, clumsy, injurious to business and difficult to manage in times of stress. The bill therefore provides for:

(1) The placing of all current funds of the Treasury in National Reserve Banks and the payment of government creditors by check thereon. (Section 21.)

(2) The equalization of the public funds between the different reserve banks subject to a rate of interest to be fixed by the Federal Reserve Board. (Section 13.)

(3) The trust funds of the Treasury are to be held as at present in the vaults of the Treasury.

FOREIGN BANKS

Recognizing that present banking legislation under the national system is inadequate in its relation to foreign trade, because it furnishes far too little recognition of the necessities of the case, and believing that the development of foreign banking ought to be aided and promoted and at the same time regulated by the national government, it has been sought in drafting the bill to provide:

(1) A new type of institutions created for foreign trade purposes and organized by individuals or existing national banks or both. (Section 41.)

(2) Permission to establish branches in foreign countries and whenever necessary under specified conditions to establish such additional branches in the United States as may seem requisite.

(3) Authority on the part of the National Reserve Banks to deal in foreign exchange and otherwise to facilitate operations involving international trade. (Section 18 and Section 19.)

(4) Permission to national banks to do an acceptance business in all matters relating to foreign trade, the importation and exportation of goods, the furnishing of travellers' funds on letters of credit, etc.

(5) The more efficient and successful handling of financial relations between the United States and foreign countries through

the placing of Treasury funds in the hands of National Reserve Banks.

COMMITTEE SUSTAINS BILL

The work of the Banking and Currency Committee covered a period of several weeks and was largely devoted to the improvement of details in the pending bill. A list of these changes would not be of special interest, even were it possible in a brief treatment of the history of the Federal Reserve Act. It is enough to say that the Committee speedily developed a difference of opinion with respect to the measure, a substantial section of it desiring to broaden the bill in the direction of action which would give to agricultural interests a larger borrowing power. Accordingly, the maturity of paper based upon farming operations was increased to 180 days although all other paper was prohibited from discount for a period of over 90 days. Some other concessions were made to so-called farming interests. Public control over the Reserve Banks was strengthened and a provision creating a so-called Federal Advisory Council, a body of bankers drawn from the various districts and directed to meet at intervals for consultation with the Federal Reserve Board, was established.

Outside these and a relatively small number of other amendments the changes in the Banking and Currency Committee of the House of Representatives amounted to little more than textual change effected for the purpose of improving or clarifying the language employed. When the bill, on September 9, was ready for introduction in the House of Representatives, with a committee report, but little alteration in it had been made in any essential particular. First, however, it was necessary that the bill should pass through the House of Representatives

caucus of the Democratic party. Although severely attacked in the deliberations of this body, which were held behind closed doors, no material change was introduced and the bill accordingly went to the House on September 18. After a short debate, it was finally adopted and sent to the Senate in a form not very different from that already given to it by the Committee.

SENATE HOSTILITY

In the Senate the Federal Reserve Bill, for as such it was now coming to be known, encountered much more serious opposition than it had been obliged to meet and overcome in the lower chamber. The Banking and Currency Committee as then organized was not friendly to it. The Chairman of that Committee, Senator R. L. Owen, had prepared a bill of his own which had not succeeded in making headway. Its place was taken by the Federal Reserve bill which he had finally consented to introduce as drafted in the House.

In the Banking and Currency Committee at least two Democratic groups, neither of them friendly to the measure, were formed, while among Republicans practically two other groups existed, one inclined to favor the bill, the other, to oppose or remodel it. In hearings before the Senate Committee, lengthy opportunity was given to the advocates of a central bank to present argument. Eventually the discussion, although taking a wide range, settled down about the question as to whether there should be fewer or a larger number of Reserve Banks, whether the Reserve Banks themselves should have full power over reserves and collections, and whether the type of note issue which had been favored in the House bill should be retained. It was with great difficulty and, probably, only as a result of the strongest pres-

sure on the part of the Administration that it proved possible to obtain a favorable report to bring the bill before the Senate for debate and eventually to pass it.

Analysis of the Senate debate would be out of the question in any brief space and may therefore be passed over with the remark that, although the discussion resulted in changes in the Federal Reserve bill, which, when combined with those already made by the Senate Banking and Currency Committee, produced a measure very different from that adopted by the House, nearly all of the changes made by the Senate, as will presently be seen, were ultimately surrendered in Conference Committee, the bill being thus shifted back in substance to the original House form. During the Conference Committee sessions, it is worthy of remark, one important innovation was introduced; a substitute section relating to the refunding of government 2 per cent bonds was transmitted to the Committee by Secretary McAdoo and adopted practically as it stood in lieu of the provisions which had been made on that subject by the two houses.

CHANGES BY THE SENATE

It is now worth while to sketch briefly and succinctly the changes made by the Senate in the House draft of the Federal Reserve Act insofar as they were ultimately retained in the final law. The work thus done may be surveyed as follows:²

Turning first to the alterations in the House bill that secured acceptance, the principal features may be enumerated as follows:

(1) Introduction of provision for sale of stock in Federal Reserve Banks to the public in the event that not enough banks

² From article by the author in *American Economic Review*, March 1914.

subscribe for the stock to furnish an adequate capital in any given district.

(2) Provision for alternative voting in the choice of directors of Federal Reserve Banks so as to insure prompt election.

(3) Reduction of number of Federal Reserve Banks to not more than 12, as against the "at least 12" of the House bill.

(4) Elimination of requirement that all national banks recharter.

(5) Broadening of powers of Federal Reserve Board and modification of language relating to rediscounts between Federal Reserve Banks, so as to render such rediscounts easier than was intended by the House bill.

(6) Provision that the Secretary of the Treasury might, not must, deposit public funds in reserve banks.

(7) Reduction of reserve requirements placed upon member banks under House bill.

On the other hand, the following important points were yielded by the Senate in the conference:

(1) Omission of provision that holders of stock sold to private individuals (if any) should have voting power in directorates of Federal Reserve Banks and elsewhere.

(2) Elimination of guaranty of bank deposits, by use of surplus earnings.

(3) Elimination of provision that Federal Reserve Bank notes might be counted in reserves of stockholding banks.

(4) Restoration of provision that many classes of checks should be collected at par throughout the country, and that where such par collection was not enforced, the charge for making collection should be fixed by the Federal Reserve Board.

(5) Elimination of domestic acceptances, thereby excluding them from use by stockholding banks and from rediscount by Federal Reserve Banks.

(6) Modification of reserve requirements as formulated by the Senate so as to require actual cash reserves in the vaults of country banks (the Senate having entirely dispensed with such reserves after twenty-four months after date of the passage of the Act) and general stiffening of reserve requirements made by the Senate, although the final language still con-

stituted a reduction below the House provision.

(7) Reduction of period of maturity for which discountable paper might run from 180 days to 90 days.

While various other points of modification and concession on either side might, of course, be enumerated, it is believed that the foregoing presentation is representative and shows sufficiently well the nature of the conference work and the character of the points conceded on either side. Assuming that such a fair or representative selection has been made, it is evident that the work of the conference resulted in the establishment of the House contentions at nearly every essential point, the exceptions to such a remark being found in two main particulars: (1) the reduction in the number of Reserve Banks and their limitation to not more than twelve at any time, and (2) the provision that public deposits might or might not be made in the Reserve Banks at the discretion of the Secretary of the Treasury.

While other points were significant and important in their way, it can certainly be fairly concluded that on those matters involving important issues of theory the House virtually held its own in most respects. In fact, it is an accurate generalization that the final bill as completed in conference committee and as passed by both Houses was a closer approach to the original House draft of the measure than anything that had intervened during the time the bill was going through the various permutations to which it was subjected in its slow progress from one stage to another of the legislative process.

At one other point there was marked and vital departure from the original House measure—the provision with reference to the refunding of United

States 2 per cent bonds and the treatment of the currency based upon such bonds. On this subject the final action of the conference was nearly equivalent to the acceptance of a plan formulated by the Administration and designed to take the place of all of the various other schemes that had been recommended from different sources in either House. The action as to bonds was, therefore, not a concession by either side but was a virtual surrender by both and an acceptance of the conclusions of the Treasury Department. Barring the two matters already mentioned, the House measure was changed in no respect that affected its essential working; nor could it be said that even in these particulars it had necessarily been subjected to modification, since, in both, the action contemplated by the provisions ultimately adopted was permissive, rather than compulsory.

THE INSPIRATION OF THE BILL

As to the idea by which the Federal Reserve Act was dominated or upon which it was molded, or as some have termed it the inspiration of the bill, there has been much unnecessary controversy. The measure as originally made ready for introduction was the outgrowth of the long years of discussion of the banking and currency problem through which the country had passed from 1893 onward. The notion of a district reserve system was directly and confessedly drawn from the experience of the banks of the country with local clearing house organizations. Other features were the careful result of foreign experience. While the bill was thus made up of ideas drawn from all available sources so far as these were known to the committee of the House of Representatives, it was prepared as the result of individual study and without the acceptance of outside bills, suggestions or models. It was, in

short, honest in its inception, professing to be with all of its various defects simply what it actually was—a measure prepared on the basis of American experience, enlightened and adapted by the use of such lessons as could be drawn from European banking practice. As the writer has said on a former occasion:³

The Federal Reserve Act is the product of a lengthy course of development and has grown gradually out of the discussion and analysis of the past twenty years. It is not drawn, even largely, from any single source, but is the product of comparison, selection, and refinement upon the various materials, ideas and data, rendered available throughout a long course of study and agitation. Many bills embodying the same general line of thought that now finds expression in the new act have been offered in Congress; some have been suggested outside that body. The most fundamental concept of all—that of uniting the banks of the country into organized groups—is found in the clearing house organizations, which in time of stress have pooled their resources and converted bank assets into the equivalent of reserve money. The bills prepared by or under the direction of the Honorable Isidor Straus, the Honorable J. H. Walker, the Honorable Charles A. Fowler, and the Honorable Maurice L. Muhleman have supplied at least the basis for many of the detailed analyses and methods of treatment that are found in the Federal Reserve Act. Earlier than any of these, was the bill recommended by the Indianapolis Monetary Commission, which did not provide for coöperative unions of banks, but upon which the framers of the present act have evidently drawn for some of their ideas.

The latest bill in the long series which was available for study to the framers of the Federal Reserve Act, was that prepared for the National Monetary Commission and called in popular language the "Aldrich bill." By many the new law is regarded as a partial copy of, or plagiarism from, the Aldrich bill; and that view has been widely

³ *American Economic Review*, loc. cit.

expressed both in and out of Congress. That such was not the opinion of Mr. Aldrich himself, his scathing and bitter denunciation of the House bill seems to bear abundant witness.⁴ It might be enough for purposes of argument simply to appeal on this point from the critics of the measure to Mr. Aldrich himself but that would hardly answer the purpose of historical analysis.

The Aldrich bill may be considered from two standpoints, (1) that of its theory and broad general plan on the one hand, and (2) that of its machinery and technique of construction on the other. From the first standpoint, there is no shadow of relationship or similarity between the Federal Reserve Act and the Aldrich bill. From the second, there is at many points a close resemblance. The Aldrich bill provided for a single central "reserve association" with scanty public oversight, with control vested practically wholly in the banks, and with the preponderance of power in the larger institutions which owned stock. It so arranged things as to keep this "reserve association" relatively inactive except upon special occasions of panic or disturbance.

It made no direct provision for the shifting of reserves in part from existing banks to the proposed association, but it relied upon inflation due to the placing of bank notes issued by the central association in the reserves of the stockholding banks for protection in time of danger. The new act provides for twelve reserve banks, introduces the principle of local control, calls for strict government oversight, shifts reserves from present correspondent banks to the new institutions, minimizes the influence of the larger banks in directorates, and generally diffuses control instead of centralizing it. It leaves banking, as such, to be practiced by bankers; it vests the control of banking in the hands of government officers. The theory and purpose of the new act are widely different from those of the Aldrich bill. Where the Aldrich proposal veers widely away from the tendencies that have been developed during the preceding ten years of American banking discussion, the Federal Reserve Act closely follows them. Indeed, the Act of 1913 is closer to any one of half a dozen bills of former years than to the Aldrich proposal.

The Aldrich-Vreeland Emergency Currency

By HOMER JOSEPH DODGE

Editor, The Federal Trade Information Service¹

THE origins of everything in the world, from man himself to slang words and phrases, from vast and perfect mechanisms to manners and customs, or great eras and economic cycles, always have held a special fascination. And there has always been someone, whether it be Darwin or the Encyclopaedia Britannica, to ferret out each firstling.

To point to the circumstances of the origin of the American currency inflation, the progress of which during the last seven years has had so profound an effect upon every branch

of our national activity, is not a difficult task. Although inflation of such tremendous proportions previously had been unheard of, the stage was especially set in preparation for that event. As a preliminary to the more serious later currency inflation, the United States had innocently provided itself with a lively springboard from which to leap.

THE FORERUNNER OF INFLATION

That springboard was the Aldrich-Vreeland Act which provided a sudden

⁴ Proceedings of American Academy of Political and Social Science, October, 1913.

¹ I am indebted to the office of the Comptroller of the Currency for the statistics of the Aldrich-Vreeland note issues.

means for issuing hundreds of millions of dollars in emergency currency. To be sure, it was designed merely to meet temporary needs for additional currency in periods of financial stress. It was intended that this currency should never remain long outstanding, but should merely supply the nation with a currency medium during the brief period required to restore confidence following a market upheaval or similar economic disturbance of known dimensions and experienced intensity. An aggregate of \$500,000,000 was provided for this purpose. That a need should develop in this generation for greater sums was undreamt.

The panic of 1907 had been a severe lesson to the American banking fraternity and to the nation as a whole. At that time clearing house certificates had been issued to the extent of \$255,536,300—a great sum then—and Congress, intent on providing a preventive against a similar embarrassment, had passed the Aldrich-Vreeland Currency Act, which was approved May 30, 1908. It was regarded as an emergency implement to be supplanted by more solid legislation and, therefore, was to expire by limitation, June 30, 1914. The permanent legislation was provided, for on December 23, 1913, the Federal Reserve Act was approved. The Federal Reserve Banks were not opened, however, until November 16, 1914, so when the European War broke out the permanent system was not ready for operation.

The War was the call-bell for the beginning of the performance of worldwide inflation. The American vehicle of participation was not ready, so Congress brought back, as a curtain-raiser, the Aldrich-Vreeland Emergency Currency Act. It extended the life of the act from June 30, 1914, to June 30, 1915.

WAR DEMAND FOR MONEY

In times of stress of almost any kind, money is the first support on which mankind leans. Availability of ample supplies of money goes far toward alleviating almost any distress. The War had not yet had an opportunity to bring home the lesson that in an economic sense, goods and services, and not money, are the king pins. With the Stock Exchange closing, and banks and business houses and individuals throughout the country in a state of bewilderment over the meaning of the War, everyone wanted money quickly.

Europe instantly began unloading her railroad and industrial securities in this market. Belligerent governments began awarding contracts for war supplies. Prices began to rise, and a thousand new demands for money sprang up. This demand, coupled with a caution on the part of the banks, arising from the native timidity of capital in the presence of great material forces, doubtless would have caused serious embarrassment had it not been for the availability of the Aldrich-Vreeland emergency currency.

A curious fact attendant upon the issuance of this money bears upon the political aspect of the event. The Federal Reserve Act had been widely press-agented to the country as a great achievement of the Democratic Congress. It was a Wilson bill, one of the heralded Democratic reforms. Now the Aldrich-Vreeland Act, as its very name signifies, was the creation of an old-fashioned Republican Congress. It was popularly known that the Federal Reserve Act had been approved; that its machinery was in process of erection. The Aldrich-Vreeland Act was forgotten. Wherefore, when, in response to the demand of the hour, an emergency currency

appeared, it was popularly received as the issue of the new Federal Reserve System. It is not a matter of large importance, but rather a curiosity of financial history, that to this day many business men are under the impression that the emergency currency with which they did business in the first few months of the War was Federal Reserve currency.

At the beginning of the crucial period following the declaration of war in Europe, the general stock of currency in the United States amounted to \$3,735,579,397, of which \$368,210,467 was held in the Treasury as assets of the government, leaving the amount in circulation at \$3,367,368,930. Of the general stock, there was in gold, \$1,887,270,664; silver, \$748,287,696; United States notes, \$349,114,016; and national bank notes, \$750,907,021.

On August 1, 1914, the stock of incomplete currency in the custody of the Comptroller of the Currency and available for issue on the security of United States bonds and other securities, was \$524,864,470. The aggregate amount of government bonds on deposit to secure circulation, together with the amount of such bonds outstanding and acceptable for that purpose, aggregated \$913,317,500, of which the national banks had on deposit to secure circulation, \$740,796,910, to secure United States deposits, \$23,047,950, and on hand unpledged, \$11,950,300. Hence, only about \$137,500,000 of the class of United States bonds acceptable as security for circulation were not owned by national banks. This amount, plus \$11,955,300, owned but unpledged, or in round amount, \$149,500,000, was the measure of the possible increase of national bank circulation on the security of United States bonds.

On August 1, 1914, the outstanding national bank circulation amounted to \$750,907,020, of which \$735,222,801 was secured by United States bonds, and the remainder, \$15,684,220, by lawful money deposited by banks in liquidation and by those that were retiring their circulation. On September 12, 1914, the date of the first report from national banks following the beginning of the European War, the reporting banks had on deposit with the Treasurer of the United States as security for circulation, United States bonds to the amount of \$736,685,850. On that date the volume of circulation issuable under the Act of 1908, that is, 125 per cent of the combined capital and surplus of the banks, amounting to \$2,230,588,239, less the amount of currency issued on United States bonds, was \$1,493,902,390. As a matter of fact, the authorized issues of currency under that Act, from the date of the first issue on August 4, 1914, to the date of the last issue on February 13, 1915, were but \$386,444,215, or less than one-fourth of the maximum issuable. The amount authorized included \$910,500 secured by state and municipal bonds deposited with the Treasurer of the United States in trust by eight national banks, all other issues being based upon securities deposited with national currency associations.

During the period of activity of issues of circulation under authority of the Act of 1908, the volume of United States bond-secured circulation was practically unchanged. The aggregate amount of outstanding national-bank circulation reached the maximum, during the period in which emergency circulation was issued, in the middle of November, 1914, namely, \$1,126,039,600.

PROVISIONS FOR RETIREMENT OF ALDRICH-VREELAND CURRENCY

The law authorized the deposit of lawful money or national bank notes for the retirement of this additional or emergency currency. By reason of general conditions and the lack of demand for funds, deposits for retirement of the additional circulation began to be made as early as the middle of October, and by January 2, 1915, aggregated \$238,698,460, or over 60 per cent of the total circulation authorized to be issued. Within nine months, that is, by May 1, 1915, \$380,039,030 of the authorized \$386,444,215 of this currency had been retired, and prior to June 30, 1915, the entire amount issued had been retired except the sum of \$200,000, the amount issued to a national bank that failed and was placed in charge of a receiver.

In addition to the securities deposited, the law provided that "the banks and the assets of all banks belonging to the association (national currency), shall be jointly and severally liable to the United States for the retirement of such additional circulation."

The value of the securities deposited with the currency associations, that is, the market value of the state and miscellaneous bonds and the face value of the commercial paper and warehouse receipts, including exchanges, was, roundly stated, \$907,880,000 of which \$651,146,000 was in commercial paper. The net value of the securities, that is, the gross amount deposited less exchanges, exceeded the value of circulation issued by more than 30 per cent.

Under the provisions of law and the rulings of the Treasury Department, securities deposited were classified as follows:

1. State, municipal, and county

bonds were accepted at 85 per cent of the market value.

2. Miscellaneous securities, including industrial bonds, and other securities, mainly city and town notes and warrants, were accepted at 75 per cent of the market value.

3. Commercial paper was accepted at 75 per cent of the face value, and—

4. Notes secured by warehouse receipts for cotton, tobacco, and naval stores at 75 per cent of the face value.

The additional circulation authorized and secured by commercial paper represented $57\frac{1}{2}$ per cent of the total amount authorized; by miscellaneous securities, 28 per cent; by state, county and municipal bonds, 14 per cent; and by notes secured by warehouse receipts, one-half of one per cent.

ACTIVITY OF NATIONAL CURRENCY ASSOCIATIONS

While there were between 7,500 and 7,600 national banks in active operation during the period in question and 45 national currency associations organized, the membership of these associations was but 2,197, and of that number only 1,363 took out additional circulation. None of the banks in four currency associations, namely, Vermont, Rhode Island, northern New York, and central New York, applied for circulation. All the states of the Union were included in one or more of the currency associations excepting Maine and Wyoming. None of the national banks in nine states, namely, Maine, Vermont, Rhode Island, Delaware, South Dakota, Montana, Wyoming, Idaho and Nevada, applied for additional circulation.

Eighty per cent, or \$309,308,210 of the authorized issue of \$386,444,215, was for banks in the reserve city

associations. The amount authorized for banks in the National Currency Association of the city of New York was \$144,975,960; Boston, \$24,944,500; Chicago, \$27,070,000; Philadelphia, \$14,883,750; Minneapolis and St. Paul, \$12,798,500; Dallas, \$11,337,950; Pittsburgh, \$10,978,000; St. Louis, \$10,836,500; Cincinnati, \$9,592,500; and San Francisco, \$8,634,500.

The tax collected on this additional circulation from August, 1914, to June 30, 1915, was \$2,977,066.73.

With the deposit of the requisite amount of lawful money to provide for the retirement of circulation issued under authority of the Act of May 30, 1908, and the release of the securing collateral, the duties of the national currency associations practically terminated, although the associations were held to be in existence until the date of the expiration of the act providing for their formation. The organization of the first national currency association, that of Washington, D. C., was approved July 18, 1908, and the last, the State of Vermont, December 16, 1914.

There were forty-five national currency associations organized with a membership of 2,197 banks, or 29.15 per cent of the total banks (7,538) that reported on the call of September 12, 1914. During the month of August, 1914, 30 associations made their first application for additional circulation, 6 in September, 4 in October; 1 did not report the date of its first application, and 4 associations made no application.

Forty-one associations approved for issue \$385,553,905 to 1,366 member banks. The first approval was made on August 3, 1914, and the last on February 5, 1915. The first application for the retirement of circulation was approved September 23, 1914. By July 1, 1915, all of the

banks to which currency was issued, with the exception of the First National Bank of Uniontown, Pa., which, upon becoming insolvent, was placed in charge of a receiver, had made the necessary deposit to retire their additional circulation.

The securities pledged with the associations aggregated \$585,864,391.94, classified as follows: commercial paper, face value, \$359,535,317.27, or 61.37 per cent of the total securities deposited; industrial bonds, par value, \$116,069,173.36, or 19.81 per cent; state, municipal and county bonds, par value, \$70,010,846.34, or 11.97 per cent; railway bonds, par value, \$31,333,800, or 5.37 per cent; other securities, face value, \$4,690,366.86, or 0.80 per cent, and warehouse receipts secured by cotton, tobacco, and naval stores, face value, \$4,224,888.11, or 0.72 per cent. The expenses of 41 currency associations, the members of which issued circulation, are reported at approximately \$125,000. Two non-issuing associations reported combined expenses, \$44.57. The other two non-issuing associations apparently incurred no expense.

DECLINE OF EMERGENCY CURRENCY AND INCREASE IN RESERVE NOTES

The Federal Reserve Banks had opened in the midst of this process, on November 16, 1914. Their machinery was unfamiliar and therefore there was no immediate substitution of the new currency for the Aldrich-Vreeland notes. Retirement of the Aldrich-Vreeland currency, however, set in early. Indeed, the date on which the greatest volume actually was outstanding was prior to the opening of the banks—October 24, 1914. This was due to retirement on the part of banks which had taken care of their emergency requirements and were

getting in shape to carry their own load. That the banking community had not abandoned the emergency currency in favor of the Federal Reserve currency is indicated by the fact that applications for the emergency currency continued to come in and the date on which the maximum approvals took place was not reached until February 13, 1915. By this time retirements of this currency had brought the amount outstanding down to \$45,377,141. The period in which the greatest volume was retired was the week ending December 12, 1914, and the amount, \$45,144,798.

There was no full replacement by Federal Reserve notes of the Aldrich-Vreeland notes. By January 1, 1915, a total of \$238,698,483 of the Aldrich-Vreeland notes had been retired while only \$16,530,000 in Federal Reserve notes were in circulation. On April 1, 1915, \$372,928,594 of the emergency currency had been retired and only \$43,376,000 in Federal Reserve notes were in circulation.

The two curves—one representing the retiring Aldrich-Vreeland notes and the other, the expanding Federal Reserve notes—crossed about March 1, 1915. On March 6, 1915, there were \$27,905,376 in Aldrich-Vreeland notes still outstanding. On March 5, 1915, there were \$29,805,000 in Federal Reserve notes in circulation.

The previous reporting date for the Aldrich-Vreeland notes was February 27, when there were \$32,249,374 outstanding. Compare this with February 26, when there were \$26,172,000 in Federal Reserve notes in circulation. The next subsequent reporting date was March 13, when there were \$24,357,227 in Aldrich-Vreeland notes outstanding. Compare this with March 12, when \$33,965,000 in Federal Reserve notes were outstanding. By June 30, when

the last of the Aldrich-Vreeland notes were retired and the Act expired by limitation, there were about \$83,000,000 in Federal Reserve notes in circulation.

So it will be seen that the Aldrich-Vreeland currency contracted at a much greater rate than the Federal Reserve currency was issued. This indicates how truly the Aldrich-Vreeland notes were an emergency—a panic currency. They were issued to allay panic or in anticipation of it; the Federal Reserve currency was issued in response to the actual needs of business. A further indication of these contrasting characters is furnished in the fact that applications for new emergency currency continued in substantial volume for a considerable time after the large retirements by the banks which had received supplies; this indicated that the emergency had passed. It is true that there was a heavy tax operating to force the emergency currency into retirement but this alone does not explain the situation. Had it been the tax which caused the Aldrich-Vreeland money to retire so precipitately, the untaxed Federal Reserve currency would have flowed out in greater volume. A year after the Federal Reserve Banks had been opened, the Federal Reserve notes in circulation were only \$184,000,000, less by nearly \$150,000,000 than the amount of Aldrich-Vreeland currency which had been outstanding a year ago.

These figures are surprising when retrospect brings them in contrast with the \$2,500,000,000 in Federal Reserve notes now outstanding and the \$3,250,000,000 outstanding a year ago. These figures further show how totally inadequate the maximum of \$500,000,000 in Aldrich-Vreeland notes would have been had the act further

been extended and sole reliance placed upon it to provide an additional currency. To be sure, there had been retirement of other classes of currency but not in such fantastic volume as to match the issuance of Federal Reserve notes.

Economists and bankers have learned a great deal about currencies since the days of the Aldrich-Vreeland issues and some rules have been upset. The phenomenon which has caused the most profound amazement has been the persistent vitality of grotesquely inflated currencies in some countries of Europe. The German mark is famous for its depreciation, the Russian ruble, notorious. Both have lost, apparently, practically all calculable relation to metallic reserves,

yet they display a lingering vitality and are accepted as being worth something, although as a matter of fact some of them are worth less than the merchandise value of the paper on which they are printed. A meal costs 100,000 rubles in Moscow, yet meals still are bought with rubles. They do circulate. The idea that the image and superscription is a talisman of some value, however much depreciated, endures in the face of accurate knowledge that the sovereignty behind these tokens practically is defunct. The idea of a legal tender has retained a momentum which, although slowed down, is yet perceptible. This fact speaks much for an innate desire on the part of the people to retain an artificial circulating medium.

The Reserve Act in Its Implicit Meaning

By A. D. WELTON

Continental and Commercial National Bank, Chicago

A GREAT banking system could conceivably grow up of itself in response to the demands of business. Such a system would be ideal because of its flexibility and freedom of adaptation to the changing requirements of commerce. But no such system ever did grow up or ever will. A business, involving such an element of trust, is necessarily conducted by human agencies and human agencies are uncertain and often dangerous. Government everywhere, in one way or another, is concerned with banking. It is concerned with the Federal Reserve System which has been evolved or built up around a statute known as the Federal Reserve Act, approved December 23, 1913.

A statute, however, is only a first step toward a banking system which is finally made up of operating banks. These are credit and currency machines whose conduct, in accordance with the law, is guided, regulated and controlled by rules, precedents, traditions, habits, customs, decisions and what not.

The mass of this material makes the system. With this view of banking it is easy to understand why the coming of the Federal Reserve Act did not bring with it the repeal of the National Bank Act. The statute known as the National Bank Act might have been repealed but the act itself is only a part of the national banking system. The rules, regulations, precedents, etc., which make up that system, could, and perhaps should, be codified but anything further would bring uncertainties and throw the entire system into confusion.

As a banking system is composed of

a variety of things beside a statute, so the statute itself is the product of a variety of plans, purposes, ideas and theories of a wide range. To get a thorough understanding of a system of any kind, of which a statute is the nucleus, some knowledge of the discussion which preceded its formulation and adoption is desirable and perhaps necessary. Certainly, one ambitious to become expertly familiar with the Federal Reserve System would have to study conditions long before December 23, 1913. The purposes and intentions of the framers of the Act are not told in the Act itself. They are concealed in many reports, documents, and in many minds. They cannot all be told in brief space but discussion of a few outstanding points will perhaps be helpful in view of recent criticism of the Reserve System, newly declared distortions of its purposes and misunderstandings of its meaning.

It may be said on all the authority that exists, that the Reserve Banks are not government institutions, that they were not intended to be, and that any interference with their operations, beyond exercise of the powers conferred on the Federal Reserve Board, is perversion of the law and its meaning as understood and expressed by those who formulated it. The Federal Reserve Banks are privately owned institutions. Their stock is all owned by their member banks. The provision of the law that, in case the banks did not subscribe for the necessary amount of stock, individuals and the government could, has never been acted upon.¹

¹ Act December 23, 1913, § 2-¶ 29 et seq.

It is possibly true that some members of Congress voted for the bill in the belief that it provided for the establishment of government banks, but it is also probably true that more of them believed that, in some way, the bill opened the way for punishing or demolishing that political phantasy—the “Money Trust.” However, what congressmen believe is not evidence.

AN AMENDMENT THAT FAILED

It may be recalled that when the Glass-Owen bill was under discussion in the Senate a serious attempt was made to give the government power over the Reserve Banks by giving the Reserve Board or the Secretary of the Treasury power to appoint a majority of the directors of each bank. Senator Hitchcock of Nebraska offered the amendment, which had other supporters. Members of the banking and currency committees of both Houses were opposed to this amendment. They maintained it was out of harmony with the spirit and purpose of the measure. Chairman Glass of the House Committee and Senator Owen of the Senate Committee were showered with telegrams from all parts of the country, urging opposition to this plan. The amendment failed completely.

Another effort was made to give the government, through the Treasury, direct control over the Reserve Board. This effort had insidious features and was redolent of politics. During the Senate discussion of the Glass-Owen bill, new prints of the bill with minor changes were frequent. In one of these there appeared one day in December an alteration of a paragraph in Section 10, which was made to read, as it still reads, as follows:

Nothing in this Act contained shall be construed as taking away any powers

heretofore vested by law in the Secretary of the Treasury which relate to the supervision, management, and control of the Treasury Department and bureaus under such department, and wherever any power vested by this Act in the Federal Reserve Board or the Federal Reserve Agent appears to conflict with the powers of the Secretary of the Treasury, such powers shall be exercised subject to the supervision and control of the Secretary.

The paragraph was innocent enough in appearance. No one seemed interested in it. Chairman Glass, of the House Committee, disclaimed all knowledge of its source, saying the bill had passed from his control. Chairman Owen, of the Senate Committee was non-committal. He thought the suggestion had come from the Treasury. The paragraph was not discussed on the floor. It passed the Conference Committee apparently without notice. Many other provisions were far more important.

Over a year later, a newspaper item made it known that the Attorney-General of the United States had given an opinion to the President to the effect that the Federal Reserve Board was an independent organization and not a bureau of the Treasury Department. When the President's secretary was queried as to the reason for requesting this opinion, he replied that the President had asked it “for Mac” but did not say whether “Mac” was Machiavelli or McAdoo.

It is not impertinent to point out that, when the Federal Farm Loan Act was on passage, the question of whether the Farm Loan Board should or should not be a bureau of the Treasury Department was fought out. Every form of the bill that came from the House Committee made the Farm Loan Board an independent organization. The Senate Committee invariably made it a bureau of the

Treasury Department. The Senate won. The Farm Loan Board is a bureau of the Treasury Department. The Federal Reserve Board is not.

RESERVE BOARD AN INDEPENDENT ORGANIZATION

The Federal Reserve Board can be classed only as an independent government organization, having supervision over the Federal Reserve Banks and exercising in that field powers defined by law.

The Federal Reserve Banks are privately owned institutions, managed by boards of directors chosen by their stockholders and authorized to function as banks, but within the provisions of law and the rules and regulations made under authority of law by the Federal Reserve Board.

The powers of the Federal Reserve Board are very broad but the great purpose of the law in creating the Board was to conserve the public interest, to provide safeguards against domination over banking by either financial or political interests, and to maintain a sound banking system.

DESIGNED AS AN AID TO BUSINESS

The Federal Reserve System was designed as an aid to business. It is applied only to commercial banking—that form of banking which takes account of the commercial scheme by which commodities are got from producer to consumer. The deposits in commercial banks mark the stored-up purchasing power of the community. Back of their loans are merchantable goods of greater value. Such banks must be liquid. They must pay on demand and their loans must, therefore, be of short maturities. In a general way a loan should run no longer than the estimated time it takes to get the goods behind it to the consumer. In relation to the producer,

the jobber may be the consumer; in relation to the jobber, the retailer holds that position; but, in any event, the final consumer must pay because he destroys the goods completely or takes them out of the class of merchantable articles.

Before the Reserve System came to give practical definition to commercial banking, commercial and investment banking were inextricably mixed. The money of commerce in the form of surplus deposits beyond the immediate needs of the owners, or in bank reserves, was drawn to the centers and chiefly to New York where it could be employed in the call loan market: that is, it could be loaned on demand against securities which represent invested capital. That system created all the "Money Trust" that ever existed.

The Federal Reserve System was intended to divorce investment from commercial banking. Notes secured by investment securities are, therefore, ineligible for rediscount. No matter how strong the market demand for such securities, they are not liquid in the sense that commercial bank loans must be liquid. At times they fluctuate widely in price. The call loan rate fluctuates accordingly. In 1907 it reached 125 per cent. An advance in commercial discount rates from 5 to 7 per cent indicates a critical condition in the commercial money market.

The plan to prevent stock market hysteria from affecting commercial business has been reasonably successful. But investment securities have not been kept out of the Reserve Banks. In Section 13, defining paper eligible for rediscount, it is provided that such definition (of eligibility) "shall not include notes, drafts or bills covering merely investments issued or drawn for the purpose of

carrying or trading in stocks, bonds or other investment securities, *except bonds and notes of the Government of the United States.*"

FISCAL AGENTS OF THE GOVERNMENT

The Reserve Banks were intended to be fiscal agents of the government and the exception as to government securities was natural at the time when the World War could not be foreseen. If anyone had thought that the United States would be issuing securities by billions before the Reserve Banks were four years old, it is doubtful if notes secured by government issues would have been made eligible for rediscount so jealous were the framers of the act of the strictly commercial character of the Reserve Banks.

Always uppermost in the minds of those men, both in and out of Congress, was the desire to keep commercial banking and the Reserve Banks free from investment securities. Innumerable proposals have been made for variations from this practice. The trials of war brought many. The farmer's insatiable demand for more capital and credit has been advanced a thousand times. It has been seriously proposed that railroad bonds be recognized as collateral for Reserve Bank loans. The pressure for some departure from the rule has been continual, if not constant.²

It is undoubtedly true that many supporters of the Federal Reserve bill in Congress were opposed to investment securities as collateral for notes eligible for rediscount only because of hostility to Wall Street and hatred of the "Money Trust." It is probably

true that the distinction between commercial and investment banking was not clear in the minds of all who voted for the bill. But it was clear in the minds of enough. To confine the Reserve System entirely to commercial banking may leave a gap in the banking scheme, but sufficient experience has been had to demonstrate the dangers of any lapse from the integrity of the present plan.

PROTEST AGAINST COMMERCIAL LIMITATIONS ON RESERVE BANKS

The War Finance Corporation was the greatest protest against the commercial limitations imposed on the Reserve Banks. The exigencies of war excused that law, if they did not justify it, but there is substantial ground for the suspicion, if not for the belief, that, underlying the plan for the War Finance Corporation, was the political desire to get for the government some measure of control over investment banking. Many "Money Trust" baiters fondly believed that the Reserve Act would cripple Wall Street. Some thought that control would be given over speculative activities. The War Finance Corporation might have had some such effect if it had functioned to the extent predicted. In its revival as a machine to meet an exigency in which something beyond the maturities permitted for rediscounts under the Reserve Act is necessary, it may fill a temporary need acceptably, but it could not function satisfactorily under other conditions, even if it is conceded that its present operations are satisfactory. On the other hand, it can only be said that, if the Reserve Banks cannot meet every commercial banking need, they are defective. The difficulty lies in determining just what is a commercial banking need. Surely it is not to hold up prices or make up or prevent

² The Federal Reserve Board adopted a policy in order to assist in the war financing which was economically unsound. Pages 62 and 63 of the hearings entitled, "Reviving the Activities of the War Finance Corporation."

losses occasioned by cataclysmic disturbances born of war. It is only fair to say that the first duty of commercial banks is to protect themselves. In doing that they protect business. So far as the present operations of the War Finance Corporation protect the commercial banks, the work is probably justified.

SOME THINGS THAT WERE INTENDED

It is not an invitation to controversy to say that the Reserve Act failed to abolish the office of Comptroller of the Currency for two reasons only: one was the political desire to keep the office in existence, and the other, the necessity for retaining temporarily an organization which was familiar with the bank records and had an operating mechanism. Similarly, the Independent Treasury system with numerous subtreasuries was marked for abolition but the work was deferred, as is told elsewhere in this volume.³

It was always the plan of the framers of the Reserve Act to secure the ultimate correction of the country's patch-work currency. It was a hard task, and is, with its difficulties increased by the clamors of the many who believe in fiat currency. However, provision is made for the ultimate retirement of both United States notes and national bank currency. A return to stable conditions will permit the execution of these provisions, although little attention has been given them as yet. The purpose of the Act was to give the country ultimately a currency composed of gold and reserve notes, with silver certificates as a sort of necessary evil to supply the demand for small bills. The disappearance of the silver during the War called forth the amendment permitting the issuance of reserve notes and Fed-

eral Reserve Bank notes of small denominations. It is hoped that the latter will soon find their way into oblivion.

Reserve Bank notes, of minor consequence in any event, have a significance as a by-product of the note controversy. Like the provision in Section 16 making reserve notes the obligations of the United States—a provision wholly at variance with the spirit of the Act and practically quite meaningless—Federal Reserve Bank notes attested the strength of the "cheap money" element and the desire of the advocates of soundness to avoid a direct test of that strength.

The bond-secured national bank currency and its retirement presented a problem of grave import. It was finally solved by the provisions in Section 18 requiring the Federal Reserve Banks to purchase such bonds, securing circulation, as were offered to the amount defined. Without discussing the methods of refunding and retiring such bonds, it may be said that the fiat money contingent revolted at the idea of having any securities carrying the circulation privilege in the hands of the Reserve Banks without providing a means of issuing notes against them. The means was provided. In due course such notes came into existence. Thus a law which was conceived in the idea that one of its great purposes would be to simplify and unify the currency, actually opened the way for the adding of a new patch and thereby heightening the crazy-quilt effect.

CHECK COLLECTIONS AND NOTE ISSUES

It is in Section 16 under the general title of "Note Issues" that there appears the provision empowering every Federal Reserve Bank to "receive on deposit at par . . . checks and drafts, etc."

³ See "The Assumption of Treasury Functions by the Federal Reserve Banks."

This and the paragraph which follows were those over which came the bitter controversy between country banks and Federal Reserve authorities. Of the merits or demerits of the arguments which that controversy aroused, nothing need be said here. The only significance for present purposes lies in the fact that "par collections" are provided for in the section devoted to note issues.

Around the question of note issue raged a conflict for many years prior to 1913. The conflict harked back to the Second Bank of the United States, the era when only the states chartered banks and every bank was a bank of issue. It had the savor from Civil War financial struggles; it had been carried through the greenback struggle; it changed its form, not its substance, when free silver was the cry, and it had redivivous whenever elasticity of the circulating medium was mentioned.

The ancient friends of much paper money were reasonably quiet when the advocates of a new banking system talked of the project in terms of bank reserves and credit, but when circulating notes were mentioned they were at home and rampant. Also they had to be dealt with and dealt with kindly and diplomatically. If they should be rubbed against the grain, there was danger that paper currency would be made so pronounced an issue that everything else would be forgotten.

This was the manner of the argument, although argument was a weapon of dubious value in that case: "Checks are the great currency medium through whose use the exchanges of commerce are effected. Elaborate investigation by the Monetary Commission's experts has shown that something between 92 and 98 per cent of all purchases are paid for with checks written against bank deposits. If checks are the chief medium of payment, they

serve the purpose of currency which may properly and logically be considered as expressing the same kind of credit in a different form."

The reply to this was that, in such a case, checks should be as good as currency. Certainly they should always be worth par. It was further agreed that elasticity demanded the constant retirement as well as the constant issuance of notes, because checks were instantly cancelled and retired once their work was done. Out of it all came the inclusion of "par collections" in the section on note issues.

However vigorously the subsequent conflict raged, the demonstration of similarity between notes and checks stood secure. The case had been proved, for another purpose perhaps, but proved nevertheless. In vain was it argued that checks are a non-circulating, not a circulating medium. In vain were private rights defended and pleas made that the banker also was worthy of his hire. Par collection stands and perhaps, after all, it was a small price the bankers paid for the relegation of fiat money to the limbo of obscurity.

There have been, of course, many departures from the plans of a reserve system as thought out by its promoters and framers. The making of twelve instead of eight reserve banks, is one instance. In many ways practical experience in operation has overthrown the theories of the system's sponsors. In many others business methods have been gradually altered and habits changed to meet the new banking scheme's requirements. There is much of political interest and much of economic value buried in the history of the struggle for a scientific banking system. A little trip among these buried treasures lets in light on later interpretations of the law. And

despite the tremendous progress made in Reserve Bank operation as the result of war necessities, there were distortions and stretchings of various provisions of the Act. Not yet has there been sufficient experience in times of

stable business, to permit a conclusion as to the complete sufficiency of the Reserve System but the foundation has been laid securely. The makers of the law builded well and in the face of very great difficulties.

The Purposes of the Federal Reserve Act as Shown By Its Explicit Provisions

By E. W. KEMMERER

Princeton University

WHAT were the chief purposes of the framers of the Federal Reserve Act as those purposes are revealed by the explicit provisions of the Act itself? In answering this question it will be well to consider (1) the framework of the Federal Reserve System, namely, its plan of organization and control, and (2) its functions.

The chief contribution made by the framers of the Federal Reserve Act was in the plan of organization they proposed, the functions assigned to the Federal Reserve Banks being essentially the same as those recommended a few years previously for the National Reserve Association of the Aldrich Plan, as well as those of a number of central bank plans still earlier proposed in this country. They are, moreover, not very different from the functions performed by the leading central banks of Europe. In this paper, therefore, attention will be given almost exclusively to the framework of the plan.

REASONS FOR A GROUP OF CENTRAL BANKS

To foreigners who study the Federal Reserve System, the most striking fact about it is that it should have twelve central banks with compara-

tively few branches, instead of one central bank with many branches. There was nothing like this anywhere else in the world, at the time the Federal Reserve System was created and, so far as I know, there is no historical example of such a group of central banks.

There were two important economic reasons for providing a group of central banks instead of one central bank. These were:

(1) The need of a system that was adaptable to widely different conditions in different parts of an immense country like the United States, with particular reference to rediscount rates, and, (2) the desire to decentralize the control of the American money market in such a way as to weaken New York's alleged domination.

One serious objection to a single central bank in the United States was the difficulty arising from the fact that interest and discount rates for essentially the same kinds of paper usually differed considerably in different parts of the country; rates in the West and South normally ruled higher than those in the Middle West, and rates in the Middle West normally ruled higher than those in New England and the Middle States. It was believed that the establishment by a single bank of

a single rediscount rate applicable throughout the United States to the same kind of paper, would be of little use to New England and the Middle States if the rate were adjusted to the higher level of rates prevailing in the West and South, and that, on the other hand, if the rate were made as low as that prevailing in the East, it would be so attractive to the West and South as to result in a dangerous expansion of the bank's loans in those sections at the expense of the East. In time, of course, such a flow of funds from the East to the West and South would equalize rates throughout the country; but the amounts of capital involved were so great that it was felt that a long period of time would be required to achieve territorial equalization of rates, and the East was not favorably disposed to the drain of its funds to the West and South that such a movement toward equalization seemed to require. The maintenance by a central bank of different discount rates in different parts of the country on the same kind of paper, it was believed, would be politically (and probably also legally) impossible.

Although there were other kinds of desirable adaptability to different economic conditions in different parts of the country, it appeared on close examination that for most purposes sufficient autonomy could not be given to branches of a single central bank to enable them to adapt the character of their services to varying local conditions.

The second reason for preferring a group of banks was the widespread feeling that the banking system of the country was being unduly centralized in New York City, where a very large part of the deposited bank reserves of the country were held and where control was widely believed to be

exercised, *sub rosa*, by a handful of so-called Wall Street banks. The Pujo Committee's "Money Trust" investigation had strengthened this popular belief, particularly through the West and South. A single central bank, it was widely believed, would be increasingly dominated by New York, while a group of banks, it was argued, would weaken New York's control by causing the growth of a group of territorially centralized money markets, each of which would handle a large part of the business of its own district, and, to a greater or less extent, would compete with New York for open-market business.

These were the main reasons why the law provided for eight to twelve banks instead of one, and why the New York district was limited to such a small area with a strong Boston district at the northeast and a strong Philadelphia district at the south.

CHARACTER OF FEDERAL RESERVE BOARD

The proposal that the central governing board of the new system should be composed entirely of government appointees was met by a strong protest throughout the country, particularly from the banking fraternity. It was claimed by many that such a board would inevitably be constituted of inefficient political appointees and would be politically controlled, thereby making the Federal Reserve System the football of politics. Much was made of the claim that the bankers, who presumably would furnish the entire capital of the Federal Reserve Banks and who would be responsible for it to their stockholders and depositors, would have no voice whatever in the appointment of the board which was to control the broad policies of the new banks. This central board of seven men to be appointed exclu-

sively by the President was in striking contrast to the central board proposed by Senator Aldrich. Under his plan the board was to consist of forty-six directors of whom forty-two, including the governor and the two deputy-governors, were to be appointed directly or indirectly by bankers.

Despite the vigorous opposition to the proposal that the central board of the Federal Reserve System be appointed entirely by the President, the proposal was adopted. It should be noted that this board was not to do a banking business. That was to be done exclusively by the twelve banks, six of the nine members of the board of directors of each being elected by the member banks. It was primarily in the field of determining broad questions of policy that the Federal Reserve Board was to function, and in this field, it was claimed, the need was for financial statesmen who would view their problems broadly from the standpoint of public service. This was true because the functions proposed for the Federal Reserve System, like those that had previously been proposed for the National Reserve Association of the Aldrich Plan, were affected with a great public interest. On this subject the writer in 1913, summarizing the conclusions of an address given by him in 1911, said as follows:¹

Is not the National Reserve Association too much of a public institution to be so largely controlled by one type of business interest, that is, that of the banking fraternity? We must get away from the prevalent idea that the National Reserve Association is to be principally a bankers' affair just because its capital is to be

furnished entirely by banks. We must bear in mind that its public deposits alone will for some time probably exceed its paid-up capital, that the funds which the banks deposit with the Association will be chiefly those which the public has deposited with the banks, and that the paper which the banks rediscount with it will be that of the business community. We must not forget that the National Reserve Association is to have a tremendous public power and responsibility, through its right to fix the bank rate of discount, its power over the foreign exchanges and gold shipments, its right to issue the country's only elastic paper currency, its supervisory power over banks, and its function of holding a large percentage of the country's reserve money, together with the privilege of having its promises to pay, in the form of its deposits and bank notes, counted as lawful reserve money for banks. Now it is possible, although by no means certain, that the interests of bankers as a class and those of the public are identical. It is certain, however, that history furnishes numerous instances in which what the public believed to be its interest and what bankers believed to be theirs were in conflict. One need not go back farther than the last two or three years to find a striking instance of the kind in the United States. I refer to the movement leading to the establishment of the United States postal saving depositories, which was opposed vigorously and almost unanimously by the banking fraternity. It is furthermore true, and perhaps of greater importance, that a large element in the country believes the interests of bankers to be in conflict with those of the general public on a great many vital questions.

Although Congress and the President did not budge an inch in their insistence upon making the Federal Reserve Board an exclusively government board, they threw a sop to the opposition by inserting in the law the provision for a "Federal Advisory Council" of bankers, one member to be selected annually by the board of directors of each Federal Reserve

¹ See "Banking Reform in the United States," *American Economic Review Supplement*, March, 1913, pp. 54 and 55; and "Some Public Aspects of the Aldrich Plan," *Journal of Political Economy*, December, 1911, pp. 819-830.

Bank from its own district, making the number of members in the Council equal to the number of Federal Reserve Banks. The relations of this Council to the Federal Reserve Board were to be entirely advisory. Neither voting nor veto power was given to the Council, which was required to meet at least four times a year and oftener, if called by the Federal Reserve Board. Members of the Federal Reserve Board who were to be "on the job" three hundred days in the year, it was generally thought, would not be likely to be greatly influenced as to their own job by a group of advisers coming from widely separated parts of the country who would meet infrequently. Happily during the last year or so, the Advisory Council has belied this expectation.

FEDERAL RESERVE BANK DIRECTORATES

In its provisions for the directorates of the Federal Reserve Banks, the Act well reveals the purpose of its framers to create a group of federated organizations that at one and the same time would (1) recognize the public's dominant interest in matters of broad policy; would (2) recognize the dominant interest of the banker and the banker's business customer in the narrower banking questions, such as the goodness of the paper against which advances were to be made, the amounts to be loaned individual member banks, the quality of open-market investments, and the like, and would (3) permit of a democratic control among the member banks of this banking business.

Of the nine members of the board of directors, three (including the chairman and the vice-chairman of the board) are Class C directors, who are appointed by the Federal Reserve Board and are directly responsible to

that Board. Their salaries are fixed by the Federal Reserve Board, and that Board may suspend Class C directors or remove them from office. These directors are the connecting links between the central Board and the Federal Reserve Bank. They keep the central Board informed as to the developments in each Federal Reserve Bank. It is through them that the Federal Reserve Board exercises its control over the broad policies of the Federal Reserve System and compels the necessary teamwork among the twelve banks.

This same sort of representation and control on the part of the Federal Reserve Board is carried through to the branches of the Federal Reserve Banks, each of which is operated under the supervision of a board of directors "to consist of not more than seven nor less than three directors, of whom a majority of one shall be appointed by the Federal Reserve Bank of the district, and the remaining directors by the Federal Reserve Board."

The other six directors, constituting two-thirds of the board, are elected by the member banks. Their concern is primarily with the banking operations of the bank, notably the character and quantity of its rediscounts and collateral loans for member banks, its open-market operations, its discount rate policy (subject to the approval of the Federal Reserve Board), and the like. Of course, the Class C directors likewise vote on these banking questions.

To every bank loan and to every bank deposit, there are at least two directly interested parties, the bank and the bank's customer. The bank's customer is usually a business man or a business concern (using those terms in their broader meaning). In recognition of this dual interest in most banking operations, the Federal Re-

serve Act provided that, of the six directors who were to be primarily concerned with the direct banking operations of the Federal Reserve Bank, three, known as Class A directors, should "be representatives of the stockholding banks"—as a matter of fact they are practically always bankers—and that the other three, known as Class B directors, should at the time of their election be "actively engaged in their district in commerce, agriculture, or some other industrial pursuit." Here is the recognition of the interest of the non-banking business community in the banking operations of the Federal Reserve Banks.

The purpose of democratizing such control over the Federal Reserve Banks as should be exercised by Class A and Class B directors is seen in the rather unique provisions for the election of directors contained in the Act as originally passed. This Act divided all member banks of each district into three groups, each group containing "as nearly as may be one-third of the aggregate number of the member banks of the district and . . . [to] consist, as nearly as may be, of banks of similar capitalization." Each of these groups was to elect one Class A director and one Class B director, on the democratic plan of "one bank one vote" regardless of the size of the bank. Under this plan the peculiar interests of the small banks, of the middle-sized banks and of the large banks, respectively, were assured representation. The democracy of a plan that gave the same voting power to the bank of \$25,000 capital that it gave to the bank of \$250,000 capital and to that of \$25,000,000 capital made a strong appeal to those who feared "Money Trust" control.

By an act of September 26, 1918, the method of choosing directors was

changed through the repeal of the requirement that each of the three groups of banks should "contain as nearly as may be one-third of the aggregate number of the member banks of the district . . ." and the substitution therefor of the provision that "the Federal Reserve Board shall classify the member banks of the district into three general groups or divisions," without placing any restriction whatever upon the number of banks that should be placed in each group. This looked like a step away from the original democratic principle of one bank one vote—a principle followed in the elections of most of the clearing house associations. It clearly increased the power of the Federal Reserve Board over the election of Class A and Class B directors.

How far the original plan of grouping the member banks, for purposes of electing directors, into three approximately equal groups of banks has since been departed from by the Federal Reserve Board in exercising the authority conferred by the above-mentioned amendment, will be seen from the following figures. A week after the amendment had been passed the Board made a reclassification of member banks for the twelve districts, which, when taken by totals for all districts, placed 515 banks or 6.4 per cent of the total number (i.e., 8,099) in group I, the large-bank group; 2,384 banks, or 29.4 of the total, in group II, the middle-sized-bank group; and 5,200 banks, or 64.2 per cent of the total, in group III, the small-sized-bank group. According to this rearrangement, therefore, the 515 largest banks in the respective districts could now elect the same number of Class A and Class B directors that the 5,200 smallest banks could elect, or the same number that the 2,700 largest

banks could previously have elected. There may have been good reasons for this great change in the grouping, increasing the power of the large bank at the expense of the smaller, but, so far as I know, the Federal Reserve Board has given little or no publicity to the change itself or to its reasons for making it. The amendment authorizing the change was passed at the Board's request.

MEMBERSHIP

Membership in the Federal Reserve System was limited to commercial banks and trust companies, showing that the System was expected to function in the field of short-time active business operations rather than in the fields of capital and real estate transactions occupied so largely by savings banks, private banks and investment houses. National banks, operating as they did under Federal charters, were expected to play the game according to the new and improved national rules laid down by the Federal Reserve Act. If they were unwilling to accept these rules they were invited to get out of the national system. State banks and trust companies possessing adequate capitals and conforming in their operations to sound banking practices were permitted and encouraged to become members of the Federal Reserve System. The Act clearly contemplated a large membership of state institutions.

CAPITAL AND DIVIDENDS

It was hoped that enough banks would enter the System from each district to assure an adequate capital for each Federal Reserve Bank, but among bankers the opposition to the Glass-Owen bill had been so pronounced and widespread, and threats had been so frequently expressed by

officials of national banks that they would give up their Federal charters and reorganize as state institutions if the Glass-Owen bill in anything like its existing form should become a law, that the framers of the Act undertook to assure the establishment of a Federal Reserve Bank in each district by providing that, if sufficient banks should not join the System, the capital could be subscribed by the public or by the government itself.

In the early stages of the bill through Congress the required stock subscription was based upon the capital of the member banks, but the basis was later changed to capital and surplus, the percentage required being reduced. The distinction between a bank's capital and its surplus is at best a rather arbitrary one and is essentially legal, rather than economic. Had the basis been capital alone, a bank desiring to keep its subscription to Federal Reserve Bank stock low, would have been encouraged to increase its surplus at the expense of its capital.

DISTRIBUTION OF PROFITS

The original Act provided that from the net earnings an annual dividend of six per cent, which should be cumulative, should be paid on the paid-in capital stock; that, of the balance of the net earnings, one-half should be paid into a surplus fund until the surplus should amount to 40 per cent of the *paid-in* capital, and that the remainder should be paid to the United States as a franchise tax. An amendment of March 3, 1919, provided that after the six per cent dividend is paid the whole of the net earnings of each bank shall be carried to surplus until the surplus shall amount to 100 per cent of the *subscribed* capital, and that, after this 100 per cent surplus shall have been accumulated, 10 per cent of the net

earnings, above the dividend charges, shall be transferred to surplus indefinitely. A bank withdrawing from the System receives back the capital it has paid in and any accumulated dividends but cannot take one cent of the accumulated surplus. The two hundred odd millions of surplus already accumulated by the twelve Banks would therefore go to the government should the Banks go out of business.

Net earnings paid to the United States by the Federal Reserve Banks, the law provided, "shall in the discretion of the Secretary, be used to supplement the gold reserve held against outstanding United States notes, or shall be applied to the reduction of the outstanding bonded indebtedness of the United States. . . ."

The significance of these provisions concerning earnings, briefly stated, is apparently as follows: The Federal Reserve Banks are to be administered with primary reference to the public service, and member banks are to receive their returns chiefly in the services rendered them directly by the Federal Reserve Banks and in the safer and more stable financial conditions throughout the country which the Federal Reserve System creates. The desire for large cash profits is to have no influence in determining the policies of the Federal Reserve Banks. Their actuating motives must be found in service to the member banks and, through the banks, to the public. If, incidentally, large profits are realized they must go to the government.

To date the profits of the twelve Federal Reserve Banks have been so large, chiefly as the result of war and post-war demands upon the System, that it seems improbable that the call for the other 3 per cent of stock subscription authorized by the Act will ever be made. On November 9,

1921, the paid-in capital and accumulated surplus of the twelve Federal Reserve Banks was \$317,000,000, an amount \$28,000,000 greater than 6 per cent of the capital and surplus of all the member banks plus 40 per cent, namely, the maximum capital and surplus contemplated by the Act of 1913 for the twelve Federal Reserve Banks.

When the Federal Reserve Act was passed there was a widespread hope among economists and bankers that any profits accruing to the government through this franchise tax would be used for the first of the two purposes authorized, i.e., "to supplement the gold reserve held against outstanding United States notes." The increase of this reserve by slightly less than \$200,000,000 would have been sufficient to transform all of our greenbacks into gold certificates and thus retire from circulation one of the most undesirable elements in our motley collection of paper money. Of the \$117,000,000 so far either paid to the government in franchise taxes by the twelve Banks or due and set aside by them for the government, all has been absorbed by the war debt and not a dollar has gone into the building up of the reserve against greenbacks.

FUNCTIONS OF FEDERAL RESERVE BANKS

As stated at the beginning, the limits of space will permit only a few words concerning the purposes of the Act as revealed in the functions assigned the Federal Reserve Banks. These functions are clearly defined in the Act and their general character is understood by all students of the System. They are, moreover, broadly speaking, the functions performed by central banks throughout the world. Chief among them are the following:

(1) The centralization and mobilization of bank reserves;

(2) The rendering more elastic of bank credit, both bank notes and bank deposits;

(3) The creation of a more efficient and cheaper clearing and collection system for checks;

(4) The improvement of facilities for financing our import and export trade at home, and finally

(5) The providing of a satisfactory depository and fiscal agency for the Federal government.

Reserves are centralized through the requirement that legal reserves of member banks shall consist exclusively of deposits in their respective Federal Reserve Banks. These reserves are largely centralized in the Gold Settlement Fund and the Federal Reserve Agents' Fund, and are rendered mobile through interbank discounts and through open market operations.

Elasticity of circulating credit is obtained through the machinery of rediscounting commercial paper, through direct collateral loans—machinery common to most central banks—and through open-market operations. The old-time stone-wall reserve requirements are done away with, and there is no limit below which a legal reserve cannot now be reduced *provided* the bank concerned is willing to pay the price. An elastic asset bank-note currency is superimposed upon the old rigid bank-note currency, although out of deference to the opinions of certain persons of high political influence in 1913, who believed that the issuance of bank notes was an exercise of the essentially government function of issuing money, the Federal Reserve notes are made to emanate from the government and made subject to a government in-

terest charge, at the discretion of the Federal Reserve Board—a charge that has never been imposed. The Federal Reserve notes therefore, in form, have some of the qualities of government paper money, but, in substance, are almost a pure asset currency possessing a government guaranty, against which contingency the government has made no provision whatever.

When the Glass-Owen bill was before Congress the provisions looking toward the parring of checks through the establishment of an extensive clearing and collection system were widely opposed by bankers, who claimed that they were the work of theorists and visionaries. The subsequent development of this clearing and collection system has gone beyond the dreams of the most visionary of the visionaries of 1913.

The extension of the use of bank acceptances and of dollar exchange in the United States, and the development of a broad and active discount market for paper arising out of foreign trade—objects clearly sought by the Federal Reserve Act—were substantially attained much more rapidly than had been expected, as a result of the dominant position in the world's trade and finance which New York obtained, temporarily at least, through the War.

The movement in the direction of making the Federal Reserve Banks the exclusive depositories of Federal government funds was checked by our entrance into the War; but, as a result of the discontinuance of the subtreasuries, the fiscal agency functions of the Federal Reserve System which were enormously enlarged by the War, have since been still further extended.

Political Pressure and the Future of the Federal Reserve System*

By PAUL M. WARBURG

Member of the Federal Reserve Board 1914-1918

FROM the earliest beginning it was obvious that, in order to be successful, any attempt at a thorough banking reform in the United States would have to approach the subject from two angles: one, from the point of view of pure banking technique, the other, from the point of view of administration. The problem was to devise a plan carrying conviction not only as a sound and effective piece of banking machinery, but also as offering reliable safeguards against any possibility of the control of the system's passing into the hands of either "big business" or the politician. If legislation was to be secured and, indeed, if the future of the system was to be protected, a formula had to be found under which these two elements would be called upon to balance one another. If the new banking system was to remain safe and sound, its administration had to be shielded from the danger of becoming subservient either to business or to politics, and, conversely, safeguards had to be provided against business' or politics' becoming subservient to the new banking system.

From the bare point of view of efficiency and economy, one central bank with a purely business management would undoubtedly have yielded the best results, but from the point of view of what was required in the larger interest of the country, of what was essential in order to prevent the system, once established, from becoming the

target of ambitious business men or scheming politicians, maximum efficiency had to be subordinated to maximum safety.

The writer's original plan, "A United Reserve Bank of the United States," proceeded on these lines; so did, subsequently, the Aldrich "National Reserve Association of the United States" and, later on, the Federal Reserve plan. Each of these schemes followed the lines of merging the country's dead gold reserves into one live organization; of building upon this more or less centralized gold an elastic note issue; and having thus centralized the scattered forces of the nation into one organic structure, of once more decentralizing its administration and organization, and circumscribing it far enough to prevent the dangers of abused power and of one-sided control.

The advocates of a pure central bank had to reconcile themselves to a lower banking ideal by surrendering to the political requirements of the case. Conversely, the sworn antagonists of a central banking system had to surrender their political ideal, the gospel of decentralized banking, in order to provide a system that would be workable as a banking proposition.

Thus the Democrats, starting with the thought of a large number of disconnected reserve banks, ended in tying them together into a central banking system, in its essential features not very dissimilar (though differing in many important details) from the Aldrich Plan, which had started at the other end.

Disregarding the question of which

*Adequate treatment of this subject would require more time and study than was possible under the circumstances and more space than could be given in this volume. P. M. W.

side made the largest share of valuable contributions and mistakes and, dealing with the topic simply from the point of view of sincere appreciation of the banking system which we enjoy today, the problem now before us is to examine what remains to be done in order to promote and protect its future.

A study of four years from within the System and of almost four years from without, leads me to think that its gravest danger lies in the gradual ascendancy of political influence.

The Federal Reserve System, as such, is based upon the perfectly sound and happy theory of placing the actual management of the Federal Reserve Banks in the hands of boards of directors, the majority of whom are appointed by business men. The direction of the System as a whole, on the other hand, its policies and its supervision, are vested in the Federal Reserve Board, which consists of five members appointed by the President and confirmed by the Senate. These members are appointed for ten-year terms and the Governor and Vice-Governor are designated by the President and serve at his pleasure. The Secretary of the Treasury and the Comptroller of the Currency are members *ex officio*. The Secretary of the Treasury is Chairman of the Board.

Among the many Presidents, Secretaries of the Treasury, Senators, Congressmen and Comptrollers of the Currency that I have known, there have been good ones and bad ones, some admirably strong and some lamentably weak. And therein lies the danger for the future: As long as there are two *ex-officio* members of the Board, who are constantly subjected to political pressure; so long as every President has the power to play favorites with Board members by promoting them to the positions of Governor or Vice-Governor or demoting them at will; so long as one

or two members may be vulnerable because their terms are about to expire, it can readily be seen how easy, and therefore tempting, it is for the political members to assert their influence, and how unpleasant and unenviable may be the lot of members struggling to preserve their independence and self-respect.

When members of the Board are hounded by senators or congressmen because they do not think it proper to flood the country with easy money, just because elections are coming; or when they refuse to believe that excessive fluctuations in foreign exchanges during the War were due to Wall Street speculation and could be regulated or controlled by the Federal Reserve Board; or when they are viciously criticised because they will not accede to the belief that fake easy money can counteract the effects of overproduction of important staples when a period of reduced world consumption is encountered—it is, at best, not easy to find men of importance willing to make the material sacrifices involved in service of the Federal Reserve Board.

It will become increasingly hopeless, however, to secure such men if some of the defects in the organization of the Board as above described are not promptly removed and the dignity and independence of the office of member are not enhanced. To state it briefly: The Governor and Vice-Governor ought to be elected by the Board itself; or they should serve in rotation, and the office of the Secretary of the Board might, in the latter case, be developed into that of something like a "general manager," or the Governor ought to be designated for the full term of his membership. The Governor ought to be the Chairman of the Board and, instead of the Secretary of the Treasury, who hardly ever has the time to attend Board meetings, the Assistant

Secretary of the Treasury ought to become an ex-officio member of the Board. There should be an additional member of the Board, who should exercise the main functions now resting in the Comptroller of the Currency. The vast powers now vested in the Comptroller are the remnants of an undemocratic, antiquated and dangerous system. Moreover, the present condition has led in the past to costly delays, duplication of work, inefficiency and unbearable irritation. Examinations and rulings concerning banking operations ought to be made by one body and not by two, if a prompt and efficient administration is to be assured. In the past, Board members often have had to wait upon the good graces—or bad graces—of the Comptroller before any headway could be made in important matters. The situation bristled with humiliating and distasteful incidents. It seems ridiculous that the Board should have appeared before Congress with one set of recommendations and the Comptroller, a Board member, with another, often entirely in conflict with the policies of the Board.

Unless the Federal Reserve Board is raised to a position of the greatest possible dignity and men of real strength, independence and knowledge are found to serve upon it in the future, it is to be feared that the System will become the football of politics. A splendid instrument of protection might thus become an element of dangerous disturbance.

This danger is all the more real because of the unfortunate action of the Organization Committee in establishing twelve Federal Reserve Banks instead of beginning with eight, as the Federal Reserve Act had permitted them to do.

The larger the number of Federal Reserve Banks and the greater the consequent decentralization, the more

important becomes the Federal Reserve Board as the sole organic link connecting them all. The weaker the single districts and the more disconnected they are, the more difficult, and at times desperate, becomes the task of the Federal Reserve Board to coax or club these autonomous units into prompt and effective coöperation. The Board was planned to be preëminently a supervisory and directive body; excessive decentralization was bound to force it more and more into the exercise of administrative functions, which—for men located at Washington, unable to be in personal close touch with actual business conditions and operations in twelve separate and remote districts—naturally became more bewildering and troublesome than was advisable or necessary.

The fundamental thought of reserve banking is that the idle money of one industry or section should become available for the seasonal requirements of another. Federal Reserve Districts, therefore, which are "all cotton" or "all grain" were from the beginning doomed to fail as independent districts; seasonal requirements were bound to exhaust their loaning power too rapidly. While they could secure assistance through the somewhat clumsy procedure of rediscounting with other Federal Reserve Banks under the direction of the Federal Reserve Board, they generally would be inclined to hesitate to resort to these rediscount operations, inasmuch as they would tend to emphasize the organic weakness or temporary exhaustion of their districts. Unfortunately the Organization Committee disregarded this fundamental principle and the districts of St. Louis, for instance, and its surrounding Federal Reserve districts were delineated with about the same regard for economic questions as were Austria and her so-called Succession

States at Versailles. Owing to this absence of a sufficient diversification of interests and minds, local banking factions and self-centered provincialism have from the beginning played too large a part in framing the boards of directors, the managements and the policies of many of the twelve Federal Reserve Banks, with little understanding of the national questions involved. Much bitter feeling and criticism were caused, particularly in the agricultural sections, by unnecessary and irritating mistakes made in fixing interest charges or in applying ill-advised methods of administration. Whatever anticipatory words or warning in this regard were given to Congress and later to the Organization Committee, unfortunately, have proved only too true, including the prophecy that an excessive number of Federal Reserve Banks would prevent the establishment of large financial centers outside of New York, where important open discount markets could develop.

It is a great loss for the country that at the time of the formulation of the law and the establishment of the System it was impossible to convince the sections involved that a Federal Reserve branch bank could convey the same benefit as a Federal Reserve Bank; indeed, that as a branch of a larger district a region would be better served than as a self-contained district. Minneapolis, as a branch of Chicago, would have been as well provided for as Detroit, but it would enjoy a rate of 5 per cent instead of its present $5\frac{1}{2}$ per cent rate. The same holds good for Dallas and Atlanta.

As stated before, the weaker the Federal Reserve Banks, the stronger must be the Federal Reserve Board. This is all the more essential because the Board appoints the C class directors. The latter often constitute very important elements of safety and

must be appointed, political pressure notwithstanding, solely from the point of view of securing the men best qualified for the protection of the Banks. Finally, the future of the local management of all banks, in short, the morale of the entire System, will depend upon the character of the Federal Reserve Board.

If the Federal Reserve System was able to accomplish its phenomenal development and if it could respond so splendidly to the trying demands of the war, and of the post-war periods, it was largely due to the devotion, vision and ability of members of the Federal Reserve Board and of some of the Federal Reserve agents and governors of Federal Reserve Banks, who perfected and developed the System into the extraordinary banking organization it is today. Strong and exceptional men made themselves the leaders of the rest. Without them, the System would have failed. Such men today are still serving the System, though from the material point of view many of them could do vastly better for themselves in other fields. If politics should creep into the Board, these men will gradually drop out, and from top to bottom the System will deteriorate. If the administration of the Federal Reserve System, in Washington and in the banks, should then fall into the hands of weak and incapable men who only see "fat jobs" in the positions, instead of those who today devote themselves to the work at a personal sacrifice because they see in it an opportunity for public service, there are dark days ahead for the country.

Government must exercise an effective control over business in its administration of the Federal Reserve Banks; but this control must be exerted through a Federal Reserve Board comprising men of the highest integrity and efficiency—men who do not seek the

job and would not hesitate to surrender it, if either business or politics should interfere with the independent exercise of their duties for the best advantage of the country as a whole.

If that is to be achieved, and the future of the Federal Reserve System is to be assured, the people themselves must take a hand. They must never fail to rally to the support of these faithful servants when unfairly attacked, and they must not lose any opportunity of showing them that their services are appreciated. If the people do not prove that they honor their leaders and stand by them loyally, what incentive is there for these leaders to hold out?

In a similar manner, Congress must feel that whoever dares to encroach upon the independence of the Federal Reserve System attacks the most sacred treasure of the people. In Washington I came to know many upright men of the very highest type; nevertheless a large number of our political

leaders might prefer that the Federal Reserve System be subservient rather than independent. They want open doors for patronage and a ready compliance with the wishes of their constituents.

Protection for the Federal Reserve System must, therefore, not be expected from Washington, unless it is possible to arouse and strengthen the small number of distinguished men in the Administration, and in Congress, who would understand the danger and would fight to ward it off. They will win if the country makes Congress understand that its heart is in it. If the people cease to exercise vigilance, if ever they relax in their insistence upon the integrity of their banking system, it may develop, as it did before, from the greatest blessing into the gravest menace. A Federal Reserve System turned into a political octopus, a national Tammany Hall, would infest not only the counting houses but every farm and hovel in the country.

Early Functioning of the Federal Reserve System

By ARTHUR REYNOLDS

President, Continental and Commercial National Bank of Chicago

ON October 26, 1914, the Secretary of the Treasury sent a message to the twelve Federal Reserve Banks, then organizing, instructing them to begin definite operations on November 16, 1914. Great haste was made to secure adequate quarters and a working staff. One-sixth of the capital stock subscriptions were called on November 2, 1914, and on the sixteenth of November the Banks formally opened for business.

"Regulation in ordinary times, as well as protection in extraordinary times" was the principle laid down by

the Federal Reserve Board in its first report after two months of operation, for defining the general scope of activities of the Federal Reserve Banks. There being no extraordinary times to call for the protective function as set forth in the above definition of policy, the operation of the Federal Reserve System during the first two years was confined largely to efforts, first, to "unify the banking system of the country" by seeking new members among the ranks of the state banks; second, to endeavor to regulate interest rates and equalize the demand for

money by the purchase of bills and acceptances in the open market, and third, to establish a par collection system and the clearance of all checks on member banks.

The men charged with the operation of the Federal Reserve System, upon its inception, promptly sought to induce the banks of the country to make full use of its facilities. They were influenced, undoubtedly, by the feeling on their part that it was necessary to keep employed such funds as were entrusted to them in order to pay expenses and to earn dividends upon the capital stock. They felt that member banks should rediscount with the Reserve Banks, and by one means and another endeavored to accomplish this. But in the early history of the System it was destined to meet with no such ready response. The old banking practice of the country had its basis in too many years of actual habit, and it was but natural that banks generally should be hesitant and cautious in making radical changes in their methods; indeed, a great many of them felt that the Federal Reserve Banks, if supported too generously, would ultimately encroach upon and usurp some of the functions of existing banks. They were loath, therefore, to go farther than the mere subscription of capital. It was inevitable that a great many bankers in the country should look upon the System as a government undertaking and fear that transactions with it would be involved in "red tape." They feared also that it would be influenced by politics.

PREJUDICE AGAINST REDISCOUNTING

Coincident with this, and one of the greatest difficulties in the way of those who were ambitious for the quick acceptance of the System, was the long-time prejudice of bankers against disclosing their borrowings to the public.

They had been educated to believe that deposits were the indication of strength, and that borrowed money was a sign of weakness. Any rediscounts or bills payable which they might lodge with the Federal Reserve Banks would appear in their statements, and since, in many instances, they could obtain credit from their city correspondents through methods which did not involve the direct obligation of their banks, and, therefore, did not appear as borrowed money, they were quite content to utilize the credit facilities of those city correspondents. It must be remembered that at this time there were no unusual conditions confronting the country; rates were low and money was easily obtainable. Bankers outside of reserve centers had, over a considerable period of years, built up their relationships with reserve city and central reserve city correspondents. Those who had occasion to borrow for seasonal requirements were intimately acquainted with the city banks which had met their needs. Those banks which had for many years maintained balances with other banks felt that they had a cumulative asset of which they could avail themselves should the occasion arise. There was mutual understanding between correspondents, while the Reserve System was an untried departure.

It will also be remembered that the Federal Reserve Act did not make provision for the turning of all reserve funds over to the Reserve Banks. The change was gradual. Old relations between banks were, therefore, not interrupted.

All of these things militated against the fullest possible functioning of the System in its early stages, and such rediscounts and bills payable as were lodged with the Federal Reserve Banks were largely in the nature of "courtesy transactions" on the part of friendly

bankers who wished to help educate the banking fraternity to use the Federal Reserve facilities.

"COURTESY TRANSACTIONS"

Comment by the Ninth District Reserve Bank in its report for the year 1915 is illustrative of the general condition confronting all of the Reserve Banks at that time:

During the latter half of November and the month of December, 1914, such rediscounts as were afforded members were largely courtesy transactions, the greater part representing the efforts of larger banks to acquaint the public with the new Federal Reserve currency. After January 1, 1915 . . . loans dropped to the lowest ebb in many years. Rates on commercial paper took new low levels. . . .

The one great plaint during this time was the non-payment of interest upon balances carried at the Reserve Banks. In the report containing the preceding comment of the Minneapolis bank, Pierre Jay, Federal Reserve agent at New York City, said:

. . . it is among the country banks as a class that most of the apathy and hostility to the Federal Reserve System which still persists is found. Their opportunities and earnings are relatively small and they must figure closely to live. They feel the loss of interest on reserve deposits; the absence, as yet, of dividends on their capital contributions, and the prospective loss or decrease of the exchange they generally charge on remitting for checks drawn upon them.

The institution of the par collection system met with great disapproval from many banks in the smaller communities where the earnings derived from exchange charges had for many years constituted a comparatively substantial part of the total earnings. Some banks sought to surrender their national bank charters and incorporate as state banks. This was only the forerunner of the more serious opposi-

tion encountered when the Reserve Banks undertook to make it compulsory upon all banks to accept their own items at par.

THE STATE BANK PROBLEM

The early attempts to obtain new members from the ranks of the state banks were bitterly opposed in many quarters. Legislation was even resorted to in combating the advances of representatives of the Federal Reserve Banks in this direction. In its second annual report on December 31, 1915, the Federal Reserve Board observed:

It is an unfortunate fact that, in some of the states, reserve requirements for state banks and trust companies have been materially lowered by legislative enactment since the adoption of the Federal Reserve Act. . . . This is an element of danger in our banking system, because the weakening of the reserves of the state banks and trust companies makes them more vulnerable in times of emergency. . . . It would be deplorable were feelings of state or local pride to lead any of the states into competition with the Federal Reserve System such as would prompt them to lower their own banking standards or reserve requirements with a view of enabling or inducing state banks to refrain from taking membership therein. The Board is satisfied that state banks gain in safety and that states sacrifice none of their prerogatives or powers when such banks become members of the Federal Reserve System, and therefore, expresses the hope that no seeming divergence of interest will be permitted to impede the establishment of higher standards of banking.

Every means was employed to make memberships in the System attractive to state banks and later amendments to the law aided in inducing them to join.

EARNING ASSETS BEFORE AND AFTER THE WAR

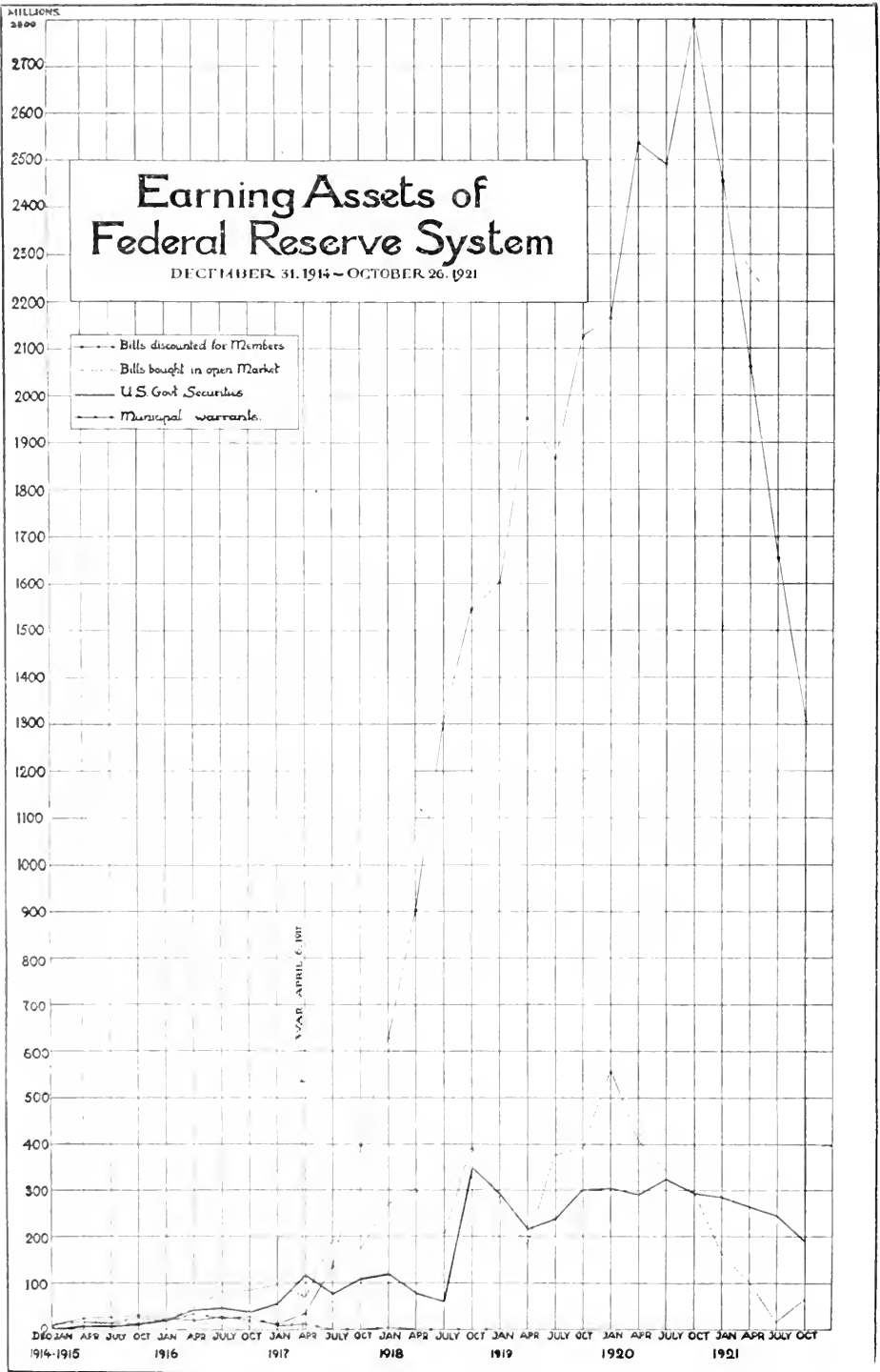
Failure to secure applications for rediscounts to employ more than a

small part of the funds of the System, caused the Reserve Banks to invest in government bonds, acceptances and municipal warrants. A careful study of the graph on page 78 showing the curves of the earning assets of all of

the Reserve Banks combined, from the date of opening to January 1st, 1921, gives a concrete picture of the early functioning of the System in contrast to its operations after the United States entered the War.

EARNING ASSETS OF THE FEDERAL RESERVE SYSTEM
DECEMBER 31, 1914—OCTOBER 26, 1921

Date	Bills discounted for members	Bills bought in open market	U. S. government securities	Municipal warrants
1914				
December 31.....	9,909,000	....	205,000	734,000
1915				
January 29.....	13,955,000	....	2,015,000	11,165,000
April 30.....	22,774,000	13,812,000	6,813,000	18,656,000
July 30.....	29,102,000	11,625,000	7,923,000	16,107,000
October 29.....	30,448,000	13,619,000	10,505,000	25,014,000
1916				
January 28.....	26,901,000	26,314,000	21,372,000	20,602,000
April 28.....	21,448,000	47,585,000	45,841,000	36,933,000
July 28.....	27,594,000	83,454,000	48,656,000	27,220,000
October 27.....	21,131,000	86,085,000	40,469,000	29,890,000
1917				
January 26.....	15,711,000	97,697,000	55,769,000	12,249,000
April 27.....	35,043,000	71,400,000	117,818,000	14,999,000
July 27.....	138,459,000	195,097,000	76,953,000	1,469,000
October 26.....	397,094,000	177,590,000	110,042,000	233,000
1918				
January 25.....	627,632,000	273,912,000	123,194,000	4,902,000
April 26.....	901,743,000	302,844,000	78,853,000	2,722,000
July 26.....	1,302,151,000	205,274,000	57,012,000	103,000
October 25.....	1,546,164,000	398,623,000	350,311,000	24,000
1919				
January 31.....	1,601,128,000	281,293,000	294,784,000	4,000
April 25.....	1,950,412,000	185,822,000	218,636,000	....
July 25.....	1,867,602,000	375,556,000	239,400,000	....
October 31.....	2,128,547,000	394,355,000	301,254,000	....
1920				
January 30.....	2,174,357,000	561,313,000	303,521,000	....
April 30.....	2,535,071,000	407,247,000	293,514,000	....
July 30.....	2,491,630,000	345,305,000	325,380,000	....
October 29.....	2,801,297,000	298,375,000	296,371,000	....
1921				
January 28.....	2,456,475,000	165,058,000	287,320,000	....
April 27.....	2,063,739,000	103,609,000	267,792,000	....
July 27.....	1,650,496,000	19,424,000	249,488,000	....
October 26.....	1,308,749,000	62,326,000	190,946,000	....



The chart of the earning assets of the System demonstrates clearly that once the exigencies of the war period arose, there was no hesitancy upon the part of member banks to make heavy demands upon the facilities of the reserve banks. Indeed, as the momentum gained force, many bankers in their eager rush to meet the requirements of their customers lost sight of the earlier scruples concerning borrowed money and the pendulum swung to the other extreme. Instead of seeking rediscovers the officials of the System found themselves striving to conserve the financial resources of the country.

The general impression prevails that the War caused a development of the Federal Reserve Banks during the seven years of their operation that probably would not have occurred in many times that number of years under other circumstances. Study of the early

functioning of the System bears out that assumption. The early operations of the banks also call to mind the point that they were less far-reaching in their influence. Business getting efforts are forgot or nearly forgot. But what was, may, perhaps, merely preface what is to come. Under stable conditions, the Reserve Banks may make smaller profits, but they will not serve a less useful purpose. Commercial banking must respond to and reflect the activities of business. In times of great activity, whether seasonal or cyclical, the Reserve Banks will be called upon to meet a corresponding demand. In the usual process of business they will have recourse to open-market operations. Through these operations they may exert a great and important influence on the commercial banks, on interest rates and on business activity.

The Federal Reserve System, State Banks and Par Collections

By PIERRE JAY

Chairman and Federal Reserve Agent, Federal Reserve Bank of New York

FULL accomplishment of the purpose of the Federal Reserve Act, to provide a means whereby the strength and resources of the numerous independent banks of the United States would be made effective for concerted or coöperative action for the protection of the banking system and the service of the nation's commerce, industry and agriculture, depended upon membership of a very considerable proportion of the banks of the country. The provision of the Act making membership compulsory for national banks, brought at once into the System about 7,600 national banks with capital and surplus of \$1,788,-

000,000 and total resources of \$11,492,000,000, thus giving a membership at the outset comprising 42.6 per cent of the total banking resources of the country. But the provision for the admission of state institutions was merely to the effect that they might, upon application, be permitted to become members, subject to regulations of the Federal Reserve Board, and should then have the rights and privileges of other member banks.

STATE INSTITUTIONS SLOW TO JOIN

Contrary to general expectation, the problem of state bank membership was found complicated. Most of the state

institutions were either passive or opposed to the plan of the Federal Reserve System. At any rate, they were not disposed to seek membership therein. The number of such members at the close of 1916 was thirty-seven, of which only seven had a capital and surplus of over \$1,000,000. In 1917, however, an amendment to the Act gave the state institutions assurance by statute, instead of by mere regulation of the Federal Reserve Board, that as members they might continue to carry on their banking business in substantially the same manner as they had previously done. It also gave them the definite right to withdraw from the System upon six months' notice.

Coincident with the legislative removal of obstacles to membership, the entrance of the United States into the World War gave a new and very strong impetus toward membership. The necessity of strengthening the banking system of the country to the maximum degree possible, in order to meet the strain of war financing, led President Wilson in the autumn of 1917 to make a strong appeal to state banking institutions to join the Federal Reserve System. The officers of Federal Reserve Banks, pursuant to what they believed to be their duty in the circumstances, carried the appeal to the individual institutions, without, however, bringing pressure upon them to join. Many of the more important ones responded and during the fall of 1917 and the first half of 1918, a considerable number of state institutions throughout the country became members. The movement was particularly noteworthy with respect to the aggregate of resources which thus augmented the strength of the System. The major portion of the large institutions in New York City entered the System promptly, and the close of the year

1917 found the System with a state bank and trust company membership of 250, having aggregate capital and surplus of \$520,000,000, and aggregate resources of about \$5,000,000,000. At the end of 1918, 936 state institutions were members with total resources of over \$7,000,000,000.

MEMBERSHIP SHOWS CONTINUED INCREASE SINCE THE WAR

With the end of the War naturally came a slowing down of the efforts of the Reserve Banks to convince state institutions of the importance of taking membership in the Federal Reserve System, and during the past year such efforts have been practically discontinued. But there has been, nevertheless, a continuous and substantial movement of state institutions into the System. The laws of many states contained provisions concerning reserves, character of investments or other vital matters which have hindered or prevented institutions in those states from taking membership in the System, and, as these obstacles have from time to time been removed, more and more state institutions have taken advantage of the opportunity to join. Many states, for example, have now passed laws providing that a state institution, becoming a member of the Federal Reserve System, need keep only the legal reserves required by the Federal Reserve Act. The influence of this factor is strikingly illustrated in California where 61 institutions with total resources of \$1,110,000,000 have become members in the eighteen months following the amendment of the state law in respect to reserves to be carried by member banks.

PRESENT MEMBERSHIP OF STATE INSTITUTIONS

Some of the state institutions which became members during the war

period, did so with the intention of withdrawing at the end of the War, but their experience as members was evidently such that they did not deem it necessary to carry out this intention, for up to the present time only 37 with resources of \$34,500,000 have withdrawn from the System. On the other hand, the number of such members has steadily increased and now amounts to 1,625, with total resources of \$9,959,000,000, giving to the System a membership which now represents, it is estimated, about 69 per cent of the commercial banking resources of the country. Approximately 9,000 state institutions with aggregate resources of some \$9,000,000,000, not now members, are eligible for membership, from which it appears that 53 per cent of the resources and 15 per cent of the numbers of the eligible state institutions are now in the System. The distribution of state bank membership by districts, is as follows:

DISTRIBUTION OF STATE BANK MEMBERSHIP BY DISTRICTS

<i>District</i>	<i>Number</i>	<i>Capital</i>	<i>Surplus</i> (<i>In thousands of dollars</i>)	<i>Total Resources</i>
1. Boston.....	41	36,411	38,951	709,890
2. New York.....	134	187,255	190,561	3,903,409
3. Philadelphia.....	48	25,821	48,738	390,902
4. Cleveland.....	113	64,436	79,344	1,041,392
5. Richmond.....	62	15,160	9,798	152,271
6. Atlanta.....	116	27,025	17,271	323,928
7. Chicago.....	364	101,012	85,092	1,753,034
8. St. Louis.....	102	30,203	22,081	400,809
9. Minneapolis.....	133	10,747	3,994	126,369
10. Kansas City.....	60	13,335	4,272	178,032
11. Dallas.....	205	16,500	6,598	128,288
12. San Francisco.....	217	57,625	25,218	900,811
¹ Total.....	1,595	585,530	531,918	10,009,135

¹ Latest available itemized figures.

ATTITUDE OF NON-MEMBER INSTITUTIONS

Banking is essentially one of the most conservative of callings, and it is not surprising that there are many state institutions which have not as yet

entered the Federal Reserve System and whose not having done so may be ascribed probably to two main causes:

1. The belief that membership in the System involves burdens or expense disproportionate to the advantages received in return, some of which, such as the avoidance of the old-fashioned money panic and the stabilization of banking conditions, they enjoy without membership. The fact that the Federal Reserve Banks do not pay interest on deposits whereas their city correspondents and reserve agents do pay interest on deposits is one of the apparent expenses which they fear to assume.

2. Opposition to the plan of par check collection which the System has established and developed.

EXPERIENCE OF MEMBER INSTITUTIONS

Most members of the System are now convinced that membership does not involve a burden or expense to a member bank, but, on the contrary, enables it to conduct its business in a

more economical and efficient manner, entirely irrespective of the advantage of the rediscount facilities. The loss of interest is offset by the reduction in the amount of reserve which member banks were required to carry. For example, a so-called country bank

under the National Bank Act formerly carried a reserve against both demand and time deposits of 15 per cent, of which 9 per cent might be on deposit with approved reserve agents, and at least 6 per cent must be held as cash in vault. Assuming deposits of \$1,000,000, all payable on demand, the bank would carry in vault at least \$60,000, upon which it would earn nothing, and with correspondents, \$90,000 upon which it would probably receive interest at 2 per cent, or \$1,800 a year. The Federal Reserve Act reduced the bank's reserve requirement to 12 per cent, or \$120,000, on which it would receive no interest, but which would give it the opportunity to loan the \$30,000 released, say at 6 per cent, which would yield \$1,800 and thus compensate for elimination of interest on the reserve balance.

In 1917 the required reserve against demand deposits was reduced to 7 per cent, all of which was to be carried with the Reserve Bank and with no fixed requirement for vault reserve. Experience shows that this has permitted an average reduction in country bank vault cash of around 4 per cent, which, together with the reduction of the required reserve against time deposits to 3 per cent, made still greater the compensating advantage due to lowered reserves. Most of the states have passed laws permitting state institutions becoming members to take advantage of these reduced requirements.

With the certainty of being able to obtain cash by rediscounting at the Federal Reserve Bank, member banks have felt justified in investing their funds more closely, carrying as their emergency reserve, bankers' acceptances, commercial paper, or government obligations which could be realized upon at any time, and thus increasing their earning power.

The opposition to the System on

account of the establishment of its par collection plan will be discussed incidentally in the following topic. But it may be said that members have found that the use of the check collection facilities of the System has reduced the length of time required for the collection of checks, and enabled them to close out many accounts formerly required, thus further increasing the proportion of their assets which may be invested.

CHECK COLLECTION BEFORE THE RESERVE SYSTEM

An important feature of banking in the United States is the extent to which the use of bank checks has been developed. They are the most usual means of settlement in all classes of business, from the payment of small household bills to payments for the largest transactions of commerce and finance. The presentation and collection of the myriads of checks arising in the course of daily business, and drawn upon over 30,000 independent banks located in all parts of the country, creates a problem of great magnitude, especially as checks are commonly used to settle accounts not only in the places where they are payable, but are sent to distant points, making necessary the use of the mails for their collection.

Before the establishment of the Federal Reserve System, the collection of checks in this country was accomplished by special arrangements between commercial banks. It was customary for banks in the country and in the smaller cities having checks on out-of-town points, to send all such checks to their city correspondent, which would undertake their collection in consideration of the balances carried by the smaller bank with the city institution. It was customary, also, for the country bank to charge the

amount to its correspondent as soon as the letter was mailed, and to treat it at once as part of its legal reserve, this being permissible under the provisions of the then existing law. The city bank to which the checks were sent, having similar arrangements with many correspondents, was the recipient of a very large volume of checks for collection and inasmuch as it had usually undertaken to collect these checks without charge, it was itself under the necessity of finding a means of collecting them with as little cost as possible. The obvious and simple method of sending the checks direct to the banks upon which they were drawn was not attractive because of the fact that the custom had grown up in many, though not all, sections of the country for the smaller banks which received checks on themselves through the mail, to make a charge for remitting to the sending bank for such checks, the rate of the charge varying with different institutions and running from \$1 per thousand dollars, to as high as \$3.50 per thousand dollars in some cases.

This charge was known as "exchange," and was made on the theory that the bank paying the checks performed a service for the bank from which the checks had been received in paying the latter with a draft on a bank in some large center. The value of this service was based upon the approximate cost of making shipment of currency to make the payment, plus postage and stationery, on the theory that payment of a bank check can be demanded only at the bank's counter, and that if remittance is made to a distant point, an additional service is performed. In order to avoid, so far as possible, the necessity of paying "exchange" for the collection of checks, it was usual for banks receiving checks from their correspondents to send

them on to some other bank for deposit and collection, charging the remittance to the latter's account, and treating it at once as legal reserve. This effort to find a means of getting the check paid without deduction for exchange, led to checks' reaching their place of payment by very circuitous routes with much delay in the time of presentation and collection, and with increased risk of loss to the indorsers of the checks. By this means, also, the same check might be counted as reserve at the same time by several different banks, although as a matter of sound banking principle, it should not have been counted as reserve for any bank until actually collected.

These unsatisfactory check-collection practices, and the fact that the charges made, as well as the loss due to slowness in collection, fell on the commerce and industry of the country, led to action by Congress which, in passing the Federal Reserve Act, included provisions requiring Federal Reserve Banks to receive on deposit at par from member banks or from Federal Reserve Banks, checks or drafts drawn on any of their depositors, and authorizing them to receive for purposes of exchange or collection, checks or drafts payable upon presentation within their districts. The Act also authorized the Federal Reserve Board to require each Federal Reserve Bank to exercise the functions of a clearing house for its member banks.

GROWTH AND ADVANTAGE OF THE PAR COLLECTION SYSTEM

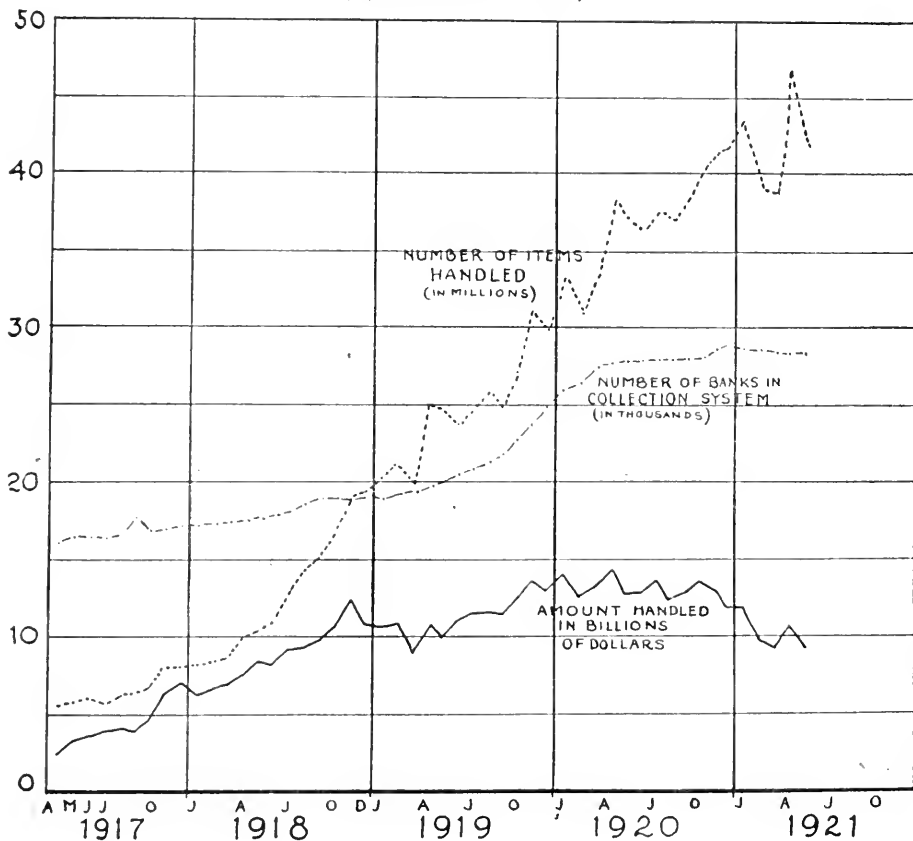
The Federal Reserve Banks did not at once actively engage in the collection of checks under the provisions of the law above referred to, because the development of a comprehensive check-clearing plan presented many difficulties, and it was not until July, 1916,

that active operations were initiated. At that time a plan of operation was adopted which, recognizing that checks are payable at the counter of the paying bank, provided that the Federal Reserve Banks, in forwarding checks to a bank for payment by remittance, would pay the cost of currency shipped in payment for the checks, whenever

tion through the mail equivalent to presentation at the bank's counter.

Operations under this plan have been highly successful, as will be gathered from the following chart showing the number and amount of items handled each month by the Reserve Banks, and the number of banks in the collection system.

GROWTH OF FEDERAL RESERVE COLLECTION SYSTEM
(By units of one month)



the paying bank elected to make payment in that way, and would also under certain conditions, especially for non-member banks, supply necessary postage and stationery, thus eliminating the elements of cost, which would otherwise fall upon the bank making the remittance, and making presenta-

The importance and desirability of the check-collection system which has developed and is now being operated by the Federal Reserve Banks, may be inferred from the extent to which the chart showing the volume of checks handled indicates that these facilities are being availed of by banks

which are members of the Federal Reserve System. They are also being availed of indirectly by non-members. The volume of items handled has grown steadily since the initiation of this method of check collection, until at the present time it may fairly be said that an overwhelming majority of all out-of-town checks handled by banks are collected through the agency of the Federal Reserve System. The Federal Reserve check-collection system has reduced the average time of collection about one-half, by the practice of the Reserve Banks of sending checks direct to the paying bank, if within the same district, or through a Federal Reserve Bank or branch if outside the district.

OPPOSITION TO PAR COLLECTIONS

It is not to be supposed that the system eliminating "exchange" and bringing about the par collection of checks should have developed so generally without encountering serious opposition from banks which had formerly received substantial income from their exchange charges. A committee of the American Bankers Association has from time to time during the past five years been endeavoring to secure legislation from Congress which would permit banks to charge exchange against the Federal Reserve Banks. Not having been successful in this, banks in Georgia, Kentucky and Oregon have brought suits to prevent the Federal Reserve Banks from presenting checks at the counters of state banks and a number of the southern states have passed laws designed to prevent the Federal Reserve Banks from collecting at par checks drawn on state institutions.

COST OF COLLECTING REDUCED

The effect of the development of this efficient system of check collection has

been to obtain for the business interests of the country a much more prompt collection of checks than formerly, reducing the risk of loss through bad checks and reducing the amount of credit which sellers of goods formerly had to extend involuntarily during the very substantial time required to collect checks. There has been, moreover, an important direct reduction in the cost of collecting checks due to the removal of the so-called "exchange" charge, or the charge made by banks for remitting in payment of checks drawn on themselves, so that at the present time a very large proportion of the country's checks are collected without charge. The change which has taken place in the schedule of charges for the collection of checks may be illustrated by the reductions made by the New York Clearing House Association.

Before the passage of the Federal Reserve Act the charges made by New York banks for collecting checks on outside points were discretionary as to less than thirty cities and were fixed at \$1 per \$1,000 for nearby states and \$2.50 per \$1,000 for the more distant states. The rate of charge is now discretionary (which means that in most cases no charge is made) for eleven entire states and the District of Columbia, 25¢ per \$1,000 for one state, 50¢ per \$1,000 for thirteen states and \$1 per thousand for twenty-three states, while twenty-eight important cities in which Federal Reserve Banks or branches are located are collectible at rates lower than those quoted for the remainder of their states.

It should be understood that the present charge made by the New York banks is not an "exchange" charge at all but is made to cover interest on funds, for which credit is given at time of deposit, for the time which will elapse before the items have been actually

collected. The former charge included not only this element but also an amount designed to enable the city bank to pay the deductions of "exchange" made by paying banks elsewhere.

TRANSFERS OF FUNDS

The elimination of seasonal and other variations in the level of domestic exchange between different parts of the country has also been accomplished as a necessary accompaniment to the development of the check-collection system, since in order that each Federal Reserve Bank might freely handle checks on other Federal Reserve districts, it was necessary to provide a means whereby the balances arising between the districts might be settled without the expense of gold or currency shipments. To meet this need there was established in 1915 a Gold Settlement Fund, made up of gold deposited by the twelve Federal Reserve Banks with the United States Treasury, ownership being transferred from one Reserve Bank to another as the need arises to settle obligations between them. The books are kept by the Federal Reserve Board at Washington, and the settlements of all obligations arising among the Federal Reserve Banks are made by book entry, thus obviating the necessity for inter-district shipment of gold. The Gold Settlement Fund has also made collected funds, that is, funds on deposit with banks in any part of the country, readily transferable to any other center without discount, either by use of the check-collection system or, if the funds are on deposit with a member bank, by telegraphic transfer through the Federal Reserve Banks, it being the custom of the Reserve Banks to handle these transfers over their intercommunicating private wire and without cost to the member banks concerned.

The importance of the wire transfer facility may be inferred from the following figures, showing telegraphic transfers handled by the New York Reserve Bank during the years 1916-1920:

	<i>Number</i>	<i>Amount</i>
1916.....	2,971	\$485,000,000
1917.....	10,302	6,768,000,000
1918.....	39,099	19,384,000,000
1919.....	82,321	18,245,000,000
1920.....	147,302	17,022,000,000

The settlement of obligations between districts has thus been made so easy, that there is no longer any occasion for premium or discount on the transfer of actually collected funds between different parts of the country.

A most important result of the development of this check-collection plan is the lessening of the possibility of breakdown in the operations of the country's check-collection system. It will be recalled that, in the panic of 1907, a situation arose in which it was impossible to get cash returns on checks sent for collection to banks in certain centers, and that the machinery of check collection and domestic exchange practically broke down. Such a development is extremely unlikely under the operation of the Federal Reserve check-collection system supported by the borrowing facilities which the Federal Reserve System makes available to member banks, and which should enable solvent banks, even in time of severe crisis, to make payment for checks which may be drawn upon them.

The Federal Reserve check-collection system, in short, provides the machinery necessary to accomplish with maximum efficiency the necessary function of presenting and collecting any number of bank checks which may result from the use of this most convenient instrument in the settling of transactions of every kind.

Relations of Reserve Banks to Member Banks and Inter-Relations of Federal Reserve Banks

By R. M. GIDNEY

Controller at Large, Federal Reserve Bank of New York

THE outstanding characteristic of the American banking system—a tremendous number of practically independent banks, great and small—does not make for concerted, uniform or effective action in dealing with banking, credit and currency problems on a nation-wide scale and in a broad way. The need for means whereby these numerous independent banks could coöperate for mutual protection and for greater service to the commerce, industry and agriculture of the country, has long been recognized by students of American banking organization and methods.

The solution suggested by the experience of other countries which have highly developed systems of branch banking supported by great central banks, has never seemed acceptable to the American public. The form of organization adopted to supply the elements formerly lacking in American banking, was necessarily designed to do so without diminishing or impairing the independence of the existing banking institutions. The Federal Reserve System was created to enable member banks, while operating independently as before, to mobilize or unite their reserve funds and make them more available to meet demands for increased credit accommodation or gold withdrawals for domestic purposes or export. The Federal Reserve Banks were to be supplementary to an already existing system consisting of some 7,500 national banks and over 19,000 state institutions, a very considerable proportion of these institutions being

expected to take membership and thus give to the system the support necessary to make it a going concern, capable of affording to its members the facilities and advantages which it was expected to create. The provision for compulsory membership of over 7,500 national banks then in existence give assurance of ample support at the outset.

The purpose, then, of the Federal Reserve System was to make possible the association of the banks of the country in order to supply the elements of mutual protection, service and facilities which our system of independent banks had lacked, and, in its essential features, it may briefly and accurately be described as a great coöperative banking association. It includes at this time about 8,200 national banks, and 1,625 state banks and trust companies. The latter have become members voluntarily under the permissive provision of the Federal Reserve Act.

RESERVE BANKS ARE PRIVATE CORPORATIONS

The circumstances attending the creation of the Federal Reserve System and the distinctly governmental character of the procedure which brought it into existence, have tended to create the impression that the Federal Reserve System is a purely governmental agency, an impression strengthened by the highly important work done by the Federal Reserve Banks acting as fiscal agents of the government in selling and handling government securities during

and since the War. The fact is, however, that the twelve Federal Reserve Banks are private corporations organized under an Act of Congress, their only stockholders being the member banks whose stock subscription is proportionate to their capital and surplus. Their operations are directed by twelve boards of directors. Two-thirds of the members of each board are elected by the member banks, and one-third are appointed by the Federal Reserve Board. Each Federal Reserve Bank is thus operated under the control of a board of directors including three government representatives, most of whom are business men, three bankers and three men engaged in commerce, industry or agriculture, but not connected as officer or director with any bank. The directorates of the Federal Reserve Banks include not only bankers, but also men experienced and successful in various lines of business, industry or agriculture. This feature of the relationship between the Federal Reserve Banks and their members is worthy of emphasis. It should be understood that the member banks, through their right to two-thirds of the directors of the Federal Reserve Banks, are in control of the actual operations of the Federal Reserve Banks, subject to supervision by the Federal Reserve Board.

Relations between Federal Reserve Banks and their members have grown to be very much like relations between the larger banks of the country and their out-of-town correspondents. The member bank stockholders of the Federal Reserve Banks use these Banks as depositaries for their legal reserves in amounts determined by law, thus bringing about the mobilization of banking reserves contemplated by the Federal Reserve Act, and furnishing the Federal Reserve Banks with the funds which are the basis for their

operations. These relations constitute the minimum which may exist between the Federal Reserve Banks and their members. For some time after the organization of the Federal Reserve Banks, a very large proportion of the member banks did not transact any business through them, and relations were only of the bare minimum above described.

The relationship now existing between the Federal Reserve Banks and their members is the result of evolution and is far closer than in the earlier days of the System. The attitude of the national bank officers whose institutions were practically drafted into the Federal Reserve System at the time of its establishment, was then not altogether friendly, and many of them were strongly antagonistic to the new System and openly expressed their intention to have as little to do with it as possible. These bankers had a natural reluctance to break or impair long established ties, and felt that the Reserve Banks would be in a sense government bureaus and would adopt methods involving red tape and affording little opportunity for close and sympathetic personal relations. Many believed that member banks, especially those in the smaller places, would have little paper of a character eligible for rediscount, and that as they would be obliged to continue to carry reserves with their correspondents, membership in the System would be more of a burden than a privilege.

Those entrusted with the management of the Federal Reserve System, appreciating and understanding the attitude of the member banks, realized that upon them devolved the duty of so conducting the Federal Reserve Banks as to disarm criticism and to make the service of the Reserve Banks to their members so satisfactory and convenient that those who had antici-

pated unpleasant relations would be obliged to revise their opinions. Notwithstanding this forward-looking attitude on the part of the managers of the Federal Reserve System, progress toward closer relations with member banks was slow, and did not become really appreciable until the pressure of problems connected with war financing in 1917 brought about a fuller utilization by member banks of the facilities of the Federal Reserve System and consequently a better understanding of its possibilities for service.

WAR LOANS A CEMENTING FACTOR

To the Federal Reserve Banks was given the great task of organizing in their respective districts distributing agencies for the huge loans which the government found it necessary to float and for this undertaking the aid and support of bankers, both member and non-member, was sought and obtained. The splendid efforts of those associated in this work may be inferred from results. The close relationship thus developed and the splendid coöperation of the bankers with the Federal Reserve Banks in placing the government's loans, made for understanding and mutual appreciation between the Reserve Banks and their members to such an extent that long before the work of government financing had ceased to require the most active efforts of those engaged in it, the attitude of the member banks had changed from passive toleration or outspoken antagonism, to an attitude on the part of the majority of the member banks distinctly friendly to the Federal Reserve System.

With war-time activity, came demand for credit expansion which brought into play the loaning function of the Federal Reserve Banks. Member banks which had been skeptical of the value of the Federal Reserve System

and had doubted the necessity for its existence, found themselves obliged to borrow if they were to do their part in war finance, and for the first time a convincing illustration of the value of the loaning activities of the Reserve Banks was given. Member banks soon found that borrowing at Reserve Banks did not involve unnecessary formality or red tape, as the loan policies of the Reserve Banks have in general been along very liberal lines. Loan applications have uniformly been acted upon promptly on day of receipt, so that a member bank sending in paper for rediscount can count upon receiving credit for the proceeds thereof as promptly as if it were a remittance of bank drafts. Promptness, liberality of treatment and willingness to meet all proper demands, which characterized the loan activities of the Reserve Banks, were most potent factors in bringing about a better understanding with their members.

QUICK MEETING OF CURRENCY NEEDS

At the same time the ability of the Federal Reserve Banks, through their power of note issue, to supply the rapidly expanding currency needs of the country, led to free development of this function. The process by which Federal Reserve notes are issued and redeemed is perhaps worthy of a brief description here. A member bank desiring currency or coin, requests the Federal Reserve Bank to charge its account and if it finds itself with more currency than it desires to retain in vault, or has currency which is no longer fit for use, it forwards the surplus to the Federal Reserve Bank for credit. The Reserve Banks pay the cost of shipping currency or coin both ways, thus facilitating the prompt redemption of currency which is in excess of the immediate needs of the country and enabling member banks

to operate with a minimum of vault reserve. The payment of cost of shipment of currency to the member banks was developed by the Federal Reserve Banks in an effort to give member institutions outside of the Federal Reserve cities as nearly as possible similar service to that given banks in the Federal Reserve cities. A similar policy for shipments of currency received from member banks was adopted as an incident to par check collection, with the object of eliminating any element of cost to a member bank in remitting for checks sent it for collection by the Federal Reserve Bank.

CHECK COLLECTION PLAN PROGRESSED SLOWLY

The Federal Reserve check collection, on the other hand, was long an obstacle to the development of close relations with member banks because of the opposition of many of the banks in smaller places to the change in practice which this System involved. The collection of checks through the Reserve Banks has, however, made tremendous growth, and each Federal Reserve Bank now sends daily letters containing checks for collection to practically all of the banks of its district, both member and non-member. Similar contact results from the collection of notes, drafts, bills of exchange, coupons, maturing bonds, etc., which is undertaken by the Federal Reserve Banks.

Other important facilities are transferring funds by wire between various sections of the country without charge to the member bank and the safekeeping of securities—the Federal Reserve Bank of New York alone now holding in this manner for its members \$1,239,215,899 of bonds and other securities. In all the transactions between the Federal Reserve Banks and their members, the attitude of the Reserve

Banks is like that of any other bank dealing with correspondents, and matters are handled along banking lines, a fact which has had much to do with the development of the close relations which now exist between Reserve Banks and their members.

BETTER BANKING METHODS

An important influence has been exerted by the Federal Reserve Banks making for improvement of banking methods on the part of member banks. The practice of obtaining financial statements from borrowers has become much more general because there is the possibility that the member bank may later desire to rediscount the paper with the Federal Reserve Bank, and also because the requirement of borrowers' statements (for notes of \$5,000 or over) by the Federal Reserve Banks has had the effect of standardizing this practice and leading to its adoption by banks which had formerly not considered it feasible. Membership in the Federal Reserve System has made for important changes in the character of bank investments, mainly in the direction of greater liquidity. Banks which had formerly carried bonds or call loans on stock exchange collateral as their so-called secondary reserve, have adopted the sound practice of diversifying their investments by adding to their portfolios commercial paper purchased in the open market and such highly liquid elements as bankers' acceptances and United States certificates of indebtedness. Thus they have placed themselves in much stronger position as to availability of funds to meet withdrawals by carrying adequate amounts of paper available for rediscount or sale, and, also, at least a moderate amount of paper of short maturity. This improvement in the distribution and liquidity of member banks' investment holdings has enabled them with safety

to invest their funds more closely than ever before with resulting increase in profit.

In the important matter of check collections, also, the practice of the Federal Reserve Banks of deferring credit on out-of-town checks a sufficient time to permit of their actual collection, has led to realization of the importance of promptness in the handling of out-of-town checks, and closer analysis than formerly of accounts involving the element of collection time. The direct activities of the Federal Reserve Banks in collecting checks for their members has reduced very materially, and perhaps cut in half, the time required to collect out-of-town checks, and encouragement has also been given to member banks to form county clearing houses so that banks in neighboring towns may exchange with each other and still further reduce the time required for collection of such checks.

BANKS NEED LESS CASH IN VAULT

More economical methods as to the holding of vault cash by member banks have been made possible by improved facilities for obtaining currency and coin, and by legislation enacted in 1917, relieving member banks from the former requirement for a fixed amount of cash in vault. In October, 1914, the 7,571 national banks of the country held cash in vault equal to 16.4 per cent of their deposits. On June 30, 1921, 9,745 member banks held vault cash equal to only 2.6 per cent of their deposits.

The influence of the Federal Reserve Banks making for improvement in the technical features of bank operation, though not readily measured, has been of fundamental importance and is among the most beneficial results of the System's operations, especially when considered with full realization of the importance in modern economic organiza-

tion of a banking machinery adapted to the great tasks which devolve upon it.

For obvious reasons no publicity has been given to a highly important Reserve Bank activity, the assistance of member banks which for any reason find themselves in a dangerous position; and the confidential character of this relationship precludes other than a very general statement concerning it. In a considerable number of instances the Reserve Banks have not only extended assistance in the way of loans, but have also loaned members of the Reserve Bank staff to assist the institutions through their difficulties, with the result, in a number of instances, that institutions which would otherwise have been forced to succumb, have been rehabilitated and are now in successful operation.

Close relations with member banks have also been assisted in some districts by conferences of member bankers with Federal Reserve Bank officers, at which the operations and functions of the Federal Reserve Banks were clearly and fully explained, and also by visits to member banks at their home offices, made by Reserve Bank representatives. The officers of the Federal Reserve Banks realize an obligation to extend a service of high order to member banks, and to promote coöperation along banking lines rather than to take an attitude which might lead member banks to feel that they were dealing with a distant and impersonal organization operated as a government agency. In other words, the Federal Reserve Banks have undertaken to function as *banks* and to conduct their relations with member banks along much the same lines as those by which the larger banking institutions of the country have in the past so successfully conducted their relations with out-of-town correspondents. The highly satisfactory results of this policy are to be found in

the friendly attitude which is now manifest on the part of member banks toward the Federal Reserve Banks.

INTER-RELATIONS OF RESERVE BANKS

The establishment of twelve regional Federal Reserve Banks rather than of a central bank, was in keeping with the great area of our country, which might be considered as making the establishment of one great central bank of doubtful advantage, and with the American predilection for the minimum of banking centralization. The twelve Federal Reserve Banks were to be, and are, operated each by its own board of directors, and each is to a very large degree an independent entity, having power to deal with the problems arising within its own district according to the judgment of its directors and officers. This has given opportunity for the development of a considerable degree of individuality in personnel and methods, and for the control of each Federal Reserve Bank by men familiar with the business of the district.

Counteracting to a considerable degree this tendency to individuality in the management and operations of the several Federal Reserve Banks, is the influence of common function and purpose, of interbank contact, and, also, the supervision of the Federal Reserve Board. The practically identical relationship of each Reserve Bank to its members and the similarity of functions, led early to efforts to coördinate action on all matters possible of common solution. Even before the organization of the Federal Reserve Board and the Federal Reserve Banks, the preliminary Organization Committee had prepared plans for accounting and methods which were to a considerable extent used by the Reserve Banks when organized, though modified in many ways as experience showed need for change.

A conference of governors and directors of all Federal Reserve Banks preceded the actual opening of the Banks. Problems of general policy before the Banks and the Federal Reserve Board, have been the subject of discussion at conferences held from time to time by governors and Federal Reserve agents. Numerous conferences have also been held by representatives of the Reserve Banks to deal with the more technical features of operation, such as accounting and auditing methods, check collections, employment methods and other similar problems. The spirit of coöperation and willingness to take counsel together, evidenced at these conferences, has been typical of the everyday relations between the Reserve Banks and has resulted in the development of a close-knit system in which the several units, though independent in management, work together to obtain for their members and the public the advantages to be derived from a unified banking system.

The results of coöperation among the Federal Reserve Banks are in some cases very tangible, as, notably, the country-wide check collection system, the establishment of facilities for transfers of funds over the private wires between Federal Reserve Banks, the establishment of a Gold Settlement Fund through which has been obviated the necessity of gold shipments between different parts of the country, and, perhaps most important of all, the facilities for interbank rediscounts by means of which seasonal loan demands may be met by the Reserve Banks whose positions are relatively strong and who loan to those on which the pressure is greatest. The advantage claimed for a central bank with ability to direct the flow of loanable funds to the point of maximum need, appears to have been attained through this arrangement, as interbank rediscounts have been freely

and voluntarily made in such amounts as were necessary to meet the heavy loan demands in many districts which would otherwise have found themselves with greatly impaired reserves.

The heaviest borrowers relatively have been the Federal Reserve Banks in the agricultural sections, the lenders being usually the banks in sections whose activities are predominantly industrial. The interbank loans at their high point were as shown in the table below:

INTER-BANK LOANS OF FEDERAL RESERVE BANKS

<i>Borrowers</i>				<i>Lenders</i>			
Bank	Amount	Reserve Before	Per- cent- ages After	Bank	Amount	Reserve Before	Per- cent- ages After
New York....	\$49,305,000	35.3	38.6	Boston.....	\$85,896,000	72.0	51.1
Richmond....	19,900,000	35.4	45.8	Phila.....	42,722,000	63.8	52.3
Atlanta.....	37,758,000	23.2	40.5	Cleveland....	137,874,000	80.5	52.3
Chicago.....	13,050,000	37.9	39.5	San Francisco...	886,000	45.2	44.9
St. Louis....	40,410,000	21.0	41.3				
Minn.....	27,204,000	17.0	39.0				
Kansas City...	45,807,000	17.4	42.5				
Dallas.....	33,944,000	13.2	40.9				
TOTAL... \$267,378,000				\$267,378,000			

The chart on page 94 illustrates graphically the movements of reserves of the Federal Reserve Banks, evidencing the pressure of demand for loans which could be safely met only by rediscounting.

RESERVE BOARD'S INFLUENCE FOR UNITY

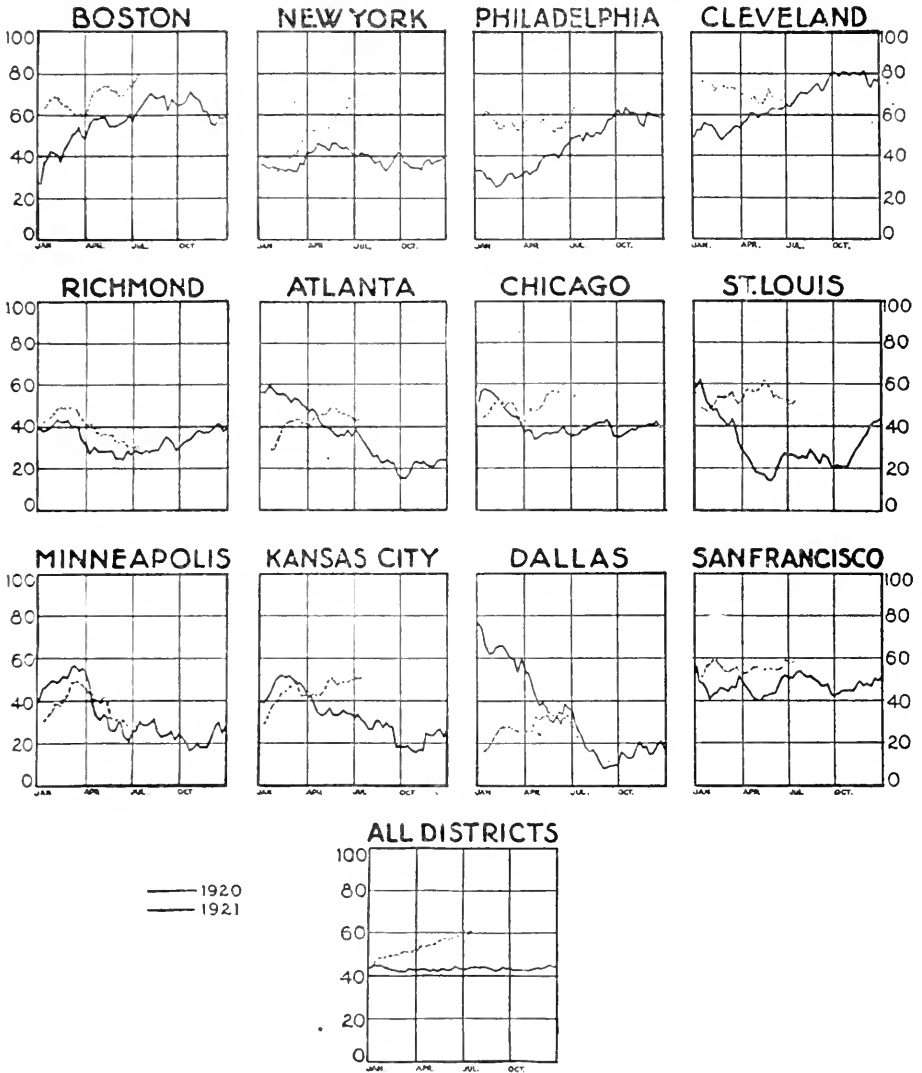
Strong as were the forces which have been mentioned in making for close relations and coöperation on the part of the Federal Reserve Banks, the position of the Federal Reserve Board, as the central element in the Federal Reserve organization, is one of such great influence that its policies may be regarded as in large measure responsible for the course which has been taken in the development of the System provided for in general outline by the

action of Congress. The policy of the Reserve Board, as revealed in its rulings and the public utterances of its members, has been consistently to refrain from performing operating functions in connection with the management of the Reserve Banks and to make its field of activity the supervision and coördination of twelve practically independent regional reserve institutions. Its rulings and regulations have served to interpret and apply the law under

which the Reserve Banks operate, and also to bring about general uniformity in the policies of the Reserve Banks, while leaving a large discretion to the management of each Bank as to the acceptance or rejection of individual paper, offered for rediscount, and as to other problems of operation.

Thus there has been noted in the operations of the Federal Reserve System a combination of uniformity of policy and flexibility of everyday operation which would be difficult or perhaps impossible under a system where the operating function was controlled by a central body. A tendency toward similarity of discount rates at the several Reserve Banks has been apparent, though differences in conditions have prevented and are likely to prevent complete uniformity in this

RESERVE PERCENTAGES FEDERAL RESERVE BANKS BEFORE INTERBANK ACCOMMODATIONS



particular. Practices as to check clearing and collection, collection of notes and drafts, supplying currency and coin, and loaning operations, are much alike at the different Reserve Banks, yet each Bank may, independently within the limits set by the law and the Federal Reserve Board's ruling and regulations, perfect and improve its methods of operation at its own option.

The Federal Reserve Board has made very clear that the Federal Reserve System is not a central bank or its equivalent, but that the twelve Federal Reserve Banks are independent institutions over which the Federal Reserve Board exercises supervisory authority, without attempting to participate directly in the management.

It thus appears that the advantages

to be expected from the free flow of credit from one part of the country to the other to meet demands for commercial, industrial or agricultural purposes, are supplied by the inter-bank rediscounting feature of the Federal Reserve System, but that the aim of having the problems of each district entrusted to directors living within the

district and to officers closely familiar with these problems, with full discretion and power to act within their own districts, has also been attained. The Federal Reserve System may be said to give the advantages of the mobilization and centralization of banking reserves while preserving the typically American freedom from highly centralized control.

The Evolution and Practical Operation of the Gold Settlement Fund

By GEORGE J. SEAY

Governor of the Federal Reserve Bank of Richmond

IT is difficult to realize that only seven years have elapsed since the establishment of the Federal Reserve Banks. During that period, matters of such tremendous import to the world have happened and developments in banking and finance have been so revolutionary in their nature and size that we have a full understanding of the feelings of the small boy of seven who declared that, although only seven, judging by the experience he had had, he was 'most a hundred. Since 1914, the resources of the banks of the United States have grown from 27 billions of dollars to 53 billions, and bank clearings have grown from 155 billions to 451 billions. In measuring the national debt, the income of the Treasury and taxation, the unit is no longer a million but a billion.

All the momentous and tragic experiences of life leave an impression upon the mind of having occupied a prolonged period. Therefore, it seems that the Federal Reserve System has been operating for a period much longer than that measured by seven calendar years. As a matter of fact, it has, beyond doubt, developed in those seven years at a pace far more

rapid than could have been expected in normal times. The country seems accustomed and seasoned to the operations of the Federal Reserve System, but, it becomes apparent from time to time that many people and even many banks have not a full appreciation of the accomplishments of the System or a full understanding of the fact that financial transactions of the magnitude developed within these seven years were rendered possible only by the operation of the System.

The country banker, when he sends his checks and collection items to his city correspondent, may think that thereby he is creating exchange. This is but the first and the lowest step in the creation of exchange. The processes involved in the collection and final settlement of such items are numerous and they constitute the fabric of exchange. The Federal Reserve System has developed the most comprehensive and most effective system of exchange known to the banking world.

The Federal Reserve Banks act as clearing houses for their members, and the various transactions engaged in by these banks create balances between

them and their members and between each other. The Federal Reserve Board has set up machinery which operates as a clearing house between Federal Reserve Banks, and the Gold Settlement Fund is the heart of the System.

Therefore, an account of the evolution and the practical operation of the Gold Settlement Fund, through which final payment is made for that vast volume of credit instruments circulating throughout the country, must contribute to a better understanding of the System as a whole.

EARLY NEED OF INTER-BANK SETTLEMENT MACHINERY

Under the terms of the Federal Reserve Act, the Federal Reserve Board, in Section 16, was authorized at its discretion to exercise the functions of a clearing house for Federal Reserve Banks. It is not to be supposed that there dwelt in the minds of the framers of this provision of the Act any well-defined conception of the manner in which this function would be exercised and least of all of the nature and magnitude of the settlements which this "clearing house" would be called upon to make within such a short period of time.

During the early days, after the organization of the Federal Reserve Banks in November, 1914, they were occupied chiefly by the receipt of payments of subscriptions to capital stock and with the receipt from member banks of deposits setting up the reserve required by the Act. Payments on account of subscriptions to capital stock were required to be made in gold or gold certificates. Reserve deposits were required to be made either in gold or lawful money, except that Federal Reserve Banks were authorized to receive as reserve not exceeding one-half of each installment payment in

eligible paper, as described in Section 14. That is to say, member banks were permitted to rediscount at that time with their Federal Reserve Bank to this extent in establishing reserves.

Under date of November 25, 1914, a circular was issued by the Federal Reserve Bank of Richmond, advising its members that the bank was ready to commence rediscounting in the regular course of business and in a position to furnish Federal Reserve notes for the proceeds of rediscounts. The member banks had previously been advised that collections and clearings could not be undertaken at the beginning and that, therefore, active accounts of member banks could not be established until further notice. They were advised, however, that after initial payments of reserve had been made, checks drawn on any member bank in the cities of Richmond, Washington and Baltimore, all within the district, would be received for the credit of the members. The member banks were cautioned, however, that while the Richmond bank was accepting checks on banks in the reserve cities of the Fifth District "it is not intended at this stage that the Reserve Bank shall be used merely to transfer balances in one place in order to make them available in another," and further "members are expected to use their present clearing connections for making collections until greater preparation has been made for clearing."

Notwithstanding the restricted nature of the business conducted at that time, balances in excess of the required reserve were created, and checks against these balances found their way into other districts. No machinery had been set up to effect settlements between Federal Reserve Banks, but it was the understanding that any Federal Reserve Bank would have the

right to call upon any other for remittances in gold to effect settlement of balances between the two.

At that time of the year (December) the flow of funds was towards New York, and, as a result of the practice of receiving from member banks for credit checks on their balances in the reserve cities of this district and then permitting the banks to check on such balances—which checks were usually sent to New York in order to create exchange—the Federal Reserve Bank of Richmond became in debt to the Federal Reserve Bank of New York for several millions of dollars. To place restraint upon this practice it became necessary to advise member banks that such checks deposited with the Federal Reserve Bank for the purpose of creating exchange would be subject to a charge for collection, in accordance with Section 16 of the Act. On January 18, 1915, in sending out notification of the second installment due on capital stock subscriptions, members were advised that payments could be made by means of checks on national banks in New York City instead of in gold. This was done for the purpose of reducing the debt of the Richmond Bank to the New York Bank, thus, to that extent, avoiding settlement with the New York Bank in gold.

It will be apparent that very early in the operation of the System the necessity for providing the machinery for making settlement between Federal Reserve Banks was a pressing one, and during that time careful study was being given to the question, both by the Federal Reserve Board and the officers of the Federal Reserve Banks.

ESTABLISHMENT OF THE GOLD SETTLEMENT FUND

Prior to the organization of Federal Reserve Banks, a report was made to

the Reserve Bank Organization Committee, by those whose services were engaged for the purpose, which contained many practical suggestions as to the organization and operation of Federal Reserve Banks. Among these was a suggestion for a "Federal Reserve Clearing House," which involved the deposit of a certain sum of gold by each Federal Reserve Bank with the Federal Reserve Board or with any Federal Reserve Bank designated by the Board to act as a clearing agent and settle balances between Federal Reserve Banks by means of book entries made by a settling agent or by certificates issued by the settling agent.

At the first conference of the governors of the banks, held with the Board in Washington, December 10, 11 and 12, 1914, a special committee was appointed to study the subject and report to the next conference. At the second conference held in Washington, January 20-23, 1915, the report of the committee was received, discussed by the conference, and, with several amendments, was submitted to the Federal Reserve Board. The plan submitted to the Board by this conference was substantially that outlined in the report of the preliminary committee on organization, though many details were submitted by the conference. The Board took the matter under consideration and announced in April, 1915, that the plan of settlement between Federal Reserve Banks had been completed and would become effective about the middle of May, 1915.

In the meantime, all the Federal Reserve Banks had been maintaining accounts with one another, which accounts, of course, were affected by all interdistrict transactions.

Under date of May 8, 1915, the Federal Reserve Board issued its *Bulletin* No. 13, Series of 1915, out-

lining the plan of clearing between Federal Reserve Banks. The plan was designed to effect settlements of all balances then outstanding and thereafter to settle accounts between Federal Reserve Banks weekly. The following is a brief statement of the principal feature of the plan: Each Federal Reserve Bank was required to forward to the Treasury at Washington or the nearest subtreasury for credit in the account of the Gold Settlement Fund one million dollars in gold, gold certificates or gold order certificates, in addition to an amount at least equal to its net indebtedness to all Federal Reserve Banks.

The Treasury Department undertook to advise the Federal Reserve Banks of the receipt of the funds and undertook further to deliver to the Federal Reserve Board gold certificates payable to the order of the Federal Reserve Board in denominations of ten thousand dollars, covering the sum so deposited. Each Federal Reserve Bank was required to make such payment into the Gold Fund from time to time as might be necessary to maintain the balance to its credit in the Fund at one million dollars. Federal Reserve Banks having balances in excess of one million dollars, as a result of clearing operations, were allowed to withdraw the excess at will, payment to be made by shipment of gold order certificates to the said bank by the Board, or payment through the nearest subtreasury.

The Board kept a set of books in which there was an account for each Federal Reserve Bank, showing at all times the amount of gold held for each bank. The gold order certificates representing the gold held by the Treasury were kept in a safe in the Treasury vaults set apart for the exclusive use of the Board, to be opened only in the presence of two persons

designated by the Secretary and two designated by the Board. The balance of each Federal Reserve Bank in the Gold Fund was permitted to be counted as a part of the gold reserve of the bank. Each Federal Reserve Bank was required to keep two accounts with every other Federal Reserve Bank, one showing the total amount due to the other Federal Reserve Bank and the other, the amount due from the other Federal Reserve Bank.

The first settlement, being historic, will be described. It was made in the following manner. At the close of business, Wednesday, May 19, 1915, each Federal Reserve Bank advised the Federal Reserve Board by wire the amount in even thousands due by it to each other Federal Reserve Bank as of that day. On Thursday, May 20, the settling agent appointed by the Board telegraphed each Federal Reserve Bank the amount of credits to its settling account, giving the name of each bank from which such credits were received, also the net debit or credit balance in the settlement. After the receipt of these advices, but not later than May 24, each Federal Reserve Bank was required to put into the Gold Fund by shipment or transfers of gold or gold certificates of the United States, directly or through the nearest subtreasury, an amount sufficient to cover its debit balance, if any, and to establish a credit balance of at least one million dollars. The totals so remitted at that time were \$18,450,000. The Federal Reserve Banks made appropriate entries in their accounts based upon the report of the settling agent. Thus the Gold Settlement Fund was launched. Thereafter, settlements were made weekly, on Thursday, upon the basis of figures telegraphed by each Federal Reserve Bank at the close of business Wednesday.

The Treasury Department had not only agreed to receive remittances in gold and to issue ten thousand dollar gold order certificates to the Federal Reserve Board, but had also agreed to allow the use of the subtreasuries in connection with remittances and withdrawals from the Gold Fund by Federal Reserve Banks. It was understood and agreed, however, that if the receipt of such remittances or the making of such payments at any time involved the actual shipment of gold from the Treasury at Washington to a subtreasury, or vice versa, the expense of such shipments should be borne by the Federal Reserve Banks.

COMMENCEMENT OF AN INTRA-DISTRICT CLEARING PLAN BY FEDERAL RESERVE BANKS

It will be understood that the balances of member banks with their Federal Reserve Banks were affected chiefly by two operations: first, by discount operations, and, second, by the collection of checks through the Federal Reserve Bank. Up to this time, as before described, the collection of checks by a Federal Reserve Bank for its members, even within its own district, had been very limited. In June, 1915, most, if not all, of the Federal Reserve Banks put into operation a voluntary plan of intra-district collections. According to this plan, a Federal Reserve Bank invited all of its members to join the collection plan, under which each member that joined the plan could send to the Federal Reserve Bank checks upon every other member that had joined the plan but upon no other members and upon no member outside of its own district. The Federal Reserve Bank would give the sending member bank immediate credit for such checks in its reserve account. On the other hand, each member bank joining the plan had agreed

that upon the day of receipt the Federal Reserve Bank could charge its reserve account with the total amount of checks drawn upon it.

While the operations of this plan did not primarily involve relations between Federal Reserve Banks, such relations were indirectly involved. Clearings under the plan depleted the reserve accounts of some members and resulted in excess balances in the reserve accounts of others. The member bank whose reserve accounts had been depleted had to remit in gold or lawful money or in some form of exchange acceptable to the Reserve Bank. Other banks whose clearings resulted in excess balances had the right to check against such balances and checks on one Federal Reserve Bank were received for credit by other Federal Reserve Banks. These transactions, in so far as they affected the accounts between Federal Reserve Banks, tended to increase the volume of the weekly settlements through the Gold Settlement Fund. It is because of this fact that a description is given of the early developments of a collection plan by Federal Reserve Banks.

In addition to clearing weekly, Federal Reserve Banks had the privilege of transferring excess balances in the Gold Fund to other Federal Reserve Banks by wire or letter to the Federal Reserve Board. During the week ending June 24, 1915, the Federal Reserve Bank of San Francisco transferred in this way to the Federal Reserve Bank of Boston two hundred thousand dollars. During the week ending July 1, 1915, San Francisco made two transfers, four hundred and fifty thousand dollars to New York and thirty thousand dollars to Chicago. These initial transfers are mentioned because they are historic. After that time, transfers between Federal Reserve Banks became more and more frequent.

The first withdrawal from the Gold Settlement Fund by any Federal Reserve Bank was made on July 14, 1915, by the Federal Reserve Bank of Chicago. Its telegram requesting the payment was received by the Board at 10.30 a.m. and at 2.00 p.m. on the same day the Assistant Treasurer of the United States at Chicago advised the bank of his readiness to make payment. Although in a number of cases thereafter such withdrawals occurred from time to time, the convenience and usefulness of the Gold Settlement Fund became more and more apparent, and there developed a tendency to allow credit balances to accumulate, so that the Fund passed the one hundred million dollar mark on November 18, 1915.

FEDERAL RESERVE AGENTS' GOLD FUND

In the latter part of 1915, the Board determined to enlarge the scope of the Gold Settlement Fund by opening accounts with the Federal Reserve agents of the various Federal Reserve Banks. While very little discounting was done by Federal Reserve Banks in the early days of the System, the volume of Federal Reserve notes put out was very considerable. Therefore, almost from the beginning, each Federal Reserve agent had the custody of and the responsibility for a considerable amount of gold, all of which, except 5 per cent deposited with the Treasurer of the United States as redemption fund, remained in his possession. Transactions involved in the issue and retirement of Federal Reserve notes necessitated frequent payments in large sums from the bank to the agent and from the agent to the bank. When these payments were made in gold or gold certificates, much counting and recounting was necessary on the part of the employes of the

bank and the representatives of the Federal Reserve agents.

In the early part of September, 1915, the Federal Reserve Board resolved that a Gold Fund should be established for the use and benefit of Federal Reserve agents, not identical with, but in close relation to and coöperation with the Gold Settlement Fund of the twelve Federal Reserve Banks. The settling agent of the Board was directed to open and maintain on the books a distinct and separate account for each Federal Reserve agent and to receive from the said agent, or from the Federal Reserve Bank for the account of such agent, deposits of gold certificates, subject to the order of the Federal Reserve agent for whom such deposits had been made. The fund of the Federal Reserve agents was handled and operated in the same manner as the Gold Settlement Fund of the banks, but, as before mentioned, the funds were handled separately. As a consequence, when transfers were made from an agent to a bank or a bank to an agent, it was necessary for the representative of the Board to make an actual shift of gold or gold certificates from one safe to another or from one compartment in the safe to another compartment.

The Federal Reserve Bank of Atlanta was the first to make such a transfer. On September 8, 1915, \$2,500,000 was passed from the account of the bank in the Gold Settlement Fund to the credit of the Federal Reserve agent. Simultaneously, the Federal Reserve agent of Atlanta released to the Federal Reserve Bank of Atlanta the same amount in gold or gold certificates. The second bank to make use of this facility was the Federal Reserve Bank of Richmond, the amount of the transfer being \$2,600,000 from the account of the bank to the account of the agent. At the

time of this writing, the Federal Reserve agents in five of the Federal Reserve Banks are keeping all of the gold deposited with them (except the 5 per cent redemption fund deposited with the Treasurer of the United States) in this fund. Of the remaining seven, six have much larger amounts to their credit in the fund than they are holding in the vaults of their banks. The amount to the credit of all Federal Reserve agents in the fund is \$1,169,210,000, while the total amount of gold and gold certificates held by the several Federal Reserve agents at their respective banks is \$450,162,000. The total amount in the funds of the Federal Reserve agents and Federal Reserve Banks is \$1,665,321,000.

SCOPE OF CLEARING PLAN

The voluntary intra-district clearing plan, established by nearly all of the Federal Reserve Banks in June, 1915, did not prove successful because it embraced only a comparatively small percentage of member banks whose operations through the Federal Reserve Banks were confined to the exchange of checks upon one another. As a matter of fact, the plan was devised and operated partly as an experiment to develop experience and data necessary to the intelligent planning of a more comprehensive system. The Federal Reserve Board and the officers of all the Federal Reserve Banks had given a great deal of time and study to the situation, both in conferences with the Board and otherwise. On July 15, 1916, the present clearing plan between Federal Reserve Banks and their members and between the Federal Reserve Banks themselves was put in operation. The plan is now too well known to need description. The plan has been modified and improved to some extent since its inauguration. At the time the plan

was inaugurated, the total number of member and non-member banks embraced in its operation was approximately fifteen thousand. At the present time the number is 28,191, or 92.8 per cent of all banks in the country, embracing more than 98 per cent of all banking resources. The number of items handled by the System in 1920 was 503,728,000, amounting to \$179,459,351,000.

The operation of the new collection plan very greatly increased the number of transactions between Federal Reserve Banks. At the same time, the increasing issues of Federal Reserve notes made necessary an increasing number of transfers between each bank and its Federal Reserve agent and between the banks themselves and the Treasurer of the United States in transactions relating to the 5 per cent redemption fund for Federal Reserve notes.

In its Second Annual Report covering the operations of the Fund, the Federal Reserve Board, page 79, stated: "The Federal Reserve Board has, up to the close of the year 1915, settled through the Gold Settlement Fund for the twelve Federal Reserve Banks indebtedness aggregating \$1,052,649,000 with a net change of only \$95,697,000 in ownership of gold held in the Fund, or 8.14 per cent of the total amount cleared. The direct expense incident to the Gold Settlement Fund in handling these transactions has been approximately \$1,150, principally for equipment and telegraph services."

In its Third Annual Report covering the year 1916, the Federal Reserve Board stated that the total clearings for the year had been \$5,533,966,000. The cost of handling the Fund was \$1,343.37, or \$0.002 $\frac{1}{2}$ per \$1,000. The net amount of change of ownership among Federal Reserve Banks as

a result of these clearings was only \$223,870,000. The Board remarked, "It may be estimated conservatively that the shipment of coin and currency of at least that amount was thus avoided." This statement merits careful attention.

AMENDMENT OF JUNE 21, 1917

The next step in the evolution of the Gold Fund was as follows: It will be remembered that the Gold Funds of the Federal Reserve Banks and the Federal Reserve agents were kept separately and that this arrangement made it necessary for the two representatives of the Federal Reserve Board and the representative of the Treasury Department to open the safe in which the Fund was held in ten thousand dollar gold order certificates and make actual transfers of such certificates from one fund to the other whenever transfers were rendered necessary. Continued increases in the issue of Federal Reserve notes and in the number and amounts of transactions between Federal Reserve Banks, involving large increases in both gold funds and a greatly enlarged number of transactions, made the duties of the custodians of the Gold Fund very burdensome. Therefore, the Board recommended to Congress an amendment to the Act, which became a law on June 21, 1917, for the purpose of simplifying the operation of the Fund, which had grown from \$18,450,000 in May, 1915, to considerably more than \$500,000,000.

Under the new plan, made possible by the amendment of Section 16 of the Federal Reserve Act, the Treasurer of the United States opened an account with the Federal Reserve Board, giving credit to the Board for the sum of deposits of Federal Reserve Banks and Federal Reserve agents combined. Individual accounts were kept as

formerly by the Federal Reserve Board. The Fund was transferred to the keeping of the Treasurer of the United States, and the Board, in its bulletin for July, 1917, in describing the transfer, said: "Some idea of the magnitude of the Fund may be had from the fact that a truck load of gold order certificates (in ten thousand dollar denomination) was transferred from the Federal Reserve Board to the Treasurer of the United States. It took three men over two days to place a stamped endorsement on the certificates. Had the amount represented been in the form of gold coin, it would have weighed 963 short tons. The Treasury of the United States, of course, issued its receipt to the Board for the money."

In its Fourth Annual Report covering the year 1917, the Federal Reserve Board stated that the operation of the Fund, which was, in effect, a clearing house for the twelve Federal Reserve Banks, had been particularly useful during the year by reason of the continuous transfers of very large amounts, which had grown out of the sale of government bonds and Treasury certificates and redistribution and disbursement of the funds realized. The total volume of clearings and transfers through the Fund during the year amounted to \$26,962,000,000, as compared with \$5,575,000,000 during 1916. The net balances representing the change of ownership between the Federal Reserve Banks of gold held in the fund were \$272,000,000. The Board stated: "Without such an arrangement, actual settlements between Federal Reserve Banks would have been accompanied with great expense and loss of time, but by its aid these enormous transfers have been made automatic and instantaneous and have been made without the inconvenience and expense which would have been

unavoidable had a physical transfer and shipment of money been necessary."

It is not only the expense and delay of the physical transfer and shipment of money which was avoided. It is to be doubted whether such transfers would have been possible at all under the old banking plan without creating financial disturbances which would have unsettled the business of the nation.

Up to this time Federal Reserve Banks were still making weekly settlements on a basis of figures shown by their books at the close of business Wednesday. Practically all communications between the Federal Reserve Banks and the Federal Reserve Board with reference to weekly settlements and transfers had been made by wire, and messages had necessarily been sent over the commercial wires. The necessity for private wires between all Federal Reserve Banks and branches and the Federal Reserve Board became too urgent to be postponed. A private or leased wire system was put in operation on June 4, 1918, and all Federal Reserve Banks employed telegraph operators.

DAILY SETTLEMENTS THROUGH THE GOLD FUND

The next step in the evolution of the Gold Fund was the institution of daily instead of weekly settlements. On July 1, 1918, a daily settlement plan was put into effect. In the *Bulletin* for July, 1918, the Board said:

The plan will eliminate a great deal of work at the Federal Reserve Banks, and through daily instead of weekly settlements will provide for the proper adjustment of the gold holdings to the credit of each Federal Reserve Bank in the Gold Settlement Fund in as nearly automatic a way as possible. At the present time, the Federal Reserve Banks, in addition to the

weekly settlement, have the privilege of demanding transfers at any time upon the net debit balance as shown in accounts with other Federal Reserve Banks. It must be expected that if the present plan of weekly settlement were to be maintained, such transfers would become more numerous in the future as the calls upon the Federal Reserve Banks became heavier. The proposed plan (for daily settlement) would do away with the greater part of such transfers and will release for the strengthening of their reserves the funds now carried as the amounts due from other Federal Reserve Banks. Under the law, balances due from other Federal Reserve Banks could not be counted as a part of the reserve of any Federal Reserve Bank, but under the regulations of the Board, which then existed, such balances due from other Federal Reserve Banks were allowed as deductions from net deposits in making reserve calculations.

GROWTH IN CLEARING TRANSACTIONS

Combined clearings and transfers through the Fund during the year 1918 aggregated \$50,242,000,000. Thus, by gradual development, what seemed, and was indeed, a formidable undertaking was worked out. The internal accounting operations of the Federal Reserve Banks were readjusted and improved, but no change was made in the plan of settlement during the year 1919. Clearings and transfers through the Fund for the year 1919 aggregated practically 74 billion dollars. The Board, in its annual report for the year 1919, made the following statement:

When it is considered that these enormous transfers are made almost instantaneously by means of the leased wire system without involving the physical movement of a dollar, it will be seen that the arrangement has been of incalculable value to the government, the banks and the public. The total expense of operation, including the cost of the leased wires and the salaries of accountants, was approxi-

mately \$250,000. This represents the basic cost of effecting domestic exchanges between the several reserve districts. A charge of ten cents per one hundred dollars, if generally imposed, would have imposed an expense on the commerce of the country of \$73,984,252.

The leased wire system had been extended to all branches of Federal Reserve Banks, and in many cases these branches participated in the Gold Settlement Fund.

The last refinement in the evolution of the Gold Settlement Fund was made when all transactions between Federal Reserve Banks which are settled through the Gold Fund were made effective on the day on which they occurred. This was made possible by the introduction of a plan or practice under which all transactions to be settled through the Gold Fund were wired to the Board from the banks and the branches, and the Board made the settlement upon its books as of that day at the earliest possible hour on the following morning, and wired the settlement figures to each Federal Reserve Bank. The Federal Reserve Banks kept their books open until such wires were received from the Federal Reserve Board, and then made the few entries necessary and closed their books as of the previous day. This plan has worked admirably and has eliminated all the float which had to be carried by those Reserve Banks with credit balances in the settlement under the previous plan, by which the daily settlement payments were not received until the day following that on which the settlement figures were made up. The volume of clearing through the Gold Fund for the year 1920 was \$92,625,000,000. The average weekly volume of clearings increased from \$31,898,000 in 1915 to \$1,793,584,000 in 1920.

"Behold, how great a matter a little fire kindleth!" Thus, from cautious beginnings, feeling the way, but nevertheless with unexpected rapidity of progress, the Federal Reserve System has developed the most effective, the most comprehensive and the most economically administered exchange system in the world of banking. When all the banks of the country are on a par clearing basis, the system can be made still more effective and useful.

At the present time, a member bank may obtain from its own Federal Reserve Bank, free of expense to itself, a telegraphic transfer of funds, in any amount, to any point in the country where a member bank is located. These transactions are effected between Federal Reserve Banks and are settled through the Gold Fund.

The Gold Fund has been of inestimable value to the Treasury, and has rendered easy of accomplishment the most stupendous financial operations ever undertaken. During the past two years, the government has collected taxes from every nook and corner of the country, amounting to about one billion dollars quarterly. Certificates of indebtedness have been issued, have matured and been paid, and the receipts and disbursements of the Treasury for a single day, on occasions, have amounted to approximately a billion dollars each way. All of these funds passed through the Federal Reserve Banks; they were adjusted and redistributed through the Gold Fund without disturbance of the financial equilibrium and so smoothly as to occasion hardly a comment. It has become a routine matter.

Lord Byron makes the Prisoner of Chillon say:

"So much a long communion tends
To make us what we are."

So we say that the public from long communion with these huge transactions now takes them as a matter of course, but without fully understand-

ing that it is the wonderful working of the Federal Reserve System which makes us commercially and financially what we are.

Eligibility for Discount

By CHARLES L. POWELL

Counsel for Federal Reserve Bank of Chicago

THE kind and character of paper which the Federal Reserve Banks may discount for member banks is in broad general terms defined in Section 13 of the Federal Reserve Act. It is there provided that the Federal Reserve Banks, upon the endorsement of member banks, may discount for them: (1) notes, drafts and bills of exchange issued or drawn for agricultural, industrial or commercial purposes, or the proceeds of which have been used or are to be used for such purposes; (2) acceptances of banks of the character and kind described in the Act.

The Federal Reserve Board, by the same section of the Act, is given the right to determine or define the character of paper made eligible for discount within the meaning of the Act; and, the Board in the exercise of this statutory right has, from time to time, promulgated a series of regulations for the guidance of the Federal Reserve Banks and member banks. These regulations, while not a part of the statute, having been made and promulgated by a lawfully constituted body, have the force and effect of law.¹ As is said by the Supreme Court of the United States, in *United States v. Clark*, "the Legislature cannot delegate its powers to make a law, but it can make a law to delegate a power to

determine some fact or state of things, upon which the law makes, or intends to make, its own action depend." Accordingly, the regulations made by the Federal Reserve Board defining, applying and limiting the character of paper eligible for rediscount must be read as part of the Act.

GENERAL LIMITATIONS ON ELIGIBILITY

The limitations on eligibility for discount, as provided by the Act and the regulations of the Board, are directed to (1) the maturity of the paper and (2) its source of origin, or the purposes for which it is to be used. The language used by the Act in respect to the latter is modeled upon many prior proposals for legislation and was manifestly for the purpose of avoiding the use of bank funds in two general classes of transactions, that is to say, in speculative transactions and in transactions involving capital investments.

The reason for these two provisions of the Act—the one relating to the origin or purpose of the note or bill and the other to its short maturity—is found in the recognized necessity of keeping the assets of the bank liquid at all times and thus readily available to meet the demands of commerce and trade.

It was expected, and the operation of the Act has proved it to be the case, that a large part of the banking resources of the nation would find its way into the

¹ *United States v. Grimaud*, 220 U. S. 506; *Dasterbignes Case*, 122 Fed. 30; *United States v. Clark*, 143 U. S. 664.

Reserve Banks. It was, and is, unthinkable, from a scientific standpoint, that these resources should be tied up in long-time investments, or in investments permanent in their nature. It is the very essence of the Federal Reserve System that its funds must be invested in short-time securities, which, in theory at least, are self-liquidating.

BOARD DEFINITIONS OF ELIGIBLE PAPER

Regulations of the Federal Reserve Board have been promulgated and put into effect, clarifying, amplifying and explaining the language of the Act, keeping in view at all times the broad general provision of the Act that investments must be of short maturity and must have arisen out of commercial transactions. These regulations have been revised from time to time. The last revision was put out under date of October 6, 1920.² This revision was amended May 6, 1921.³

The Board's regulations define with particularity promissory notes, drafts, bills of exchange, trade acceptances, six months' agricultural paper and bankers' acceptances eligible for discount, but the definitions thus promulgated by the Board are well within the usual definitions found in the Negotiable Instruments Acts of the various states, so far as such acts deal with similar instrumentalities of commerce.

In addition to definitions of such ordinary instruments, a trade acceptance is defined as "a draft or bill of exchange, drawn by the seller on the purchaser of goods sold, and accepted by such purchaser."

Six months' agricultural paper is defined as "a note, draft, bill of exchange or trade acceptance, the proceeds of which have been used, or are to be used, for agricultural purposes, in-

cluding the breeding, raising, fattening or marketing of live stock, and which has a maturity at the time of discount of not more than six months, exclusive of days of grace."

COMMERCIAL AND AGRICULTURAL PURPOSES DEFINED

Under the regulations, paper may be eligible because issued or drawn for an agricultural or commercial purpose, or it may be eligible because the proceeds have been, or are to be, used for an agricultural or commercial purpose. The purchase and sale of goods of any character is a commercial transaction from the standpoint of the seller, and the note of a buyer given to the seller in payment for articles purchased is a note which has been "issued or drawn for a commercial purpose."

The use of the proceeds of a note to purchase goods for re-sale is a commercial purpose, even though the articles purchased will be permanent investments in the hands of the final purchaser; and, accordingly, the note of a dealer, discounted by him at a local bank, to provide funds to purchase articles for re-sale, may be eligible for discount as commercial paper, irrespective of the character of the articles purchased; but a note of a farmer discounted by him at his local bank to provide funds with which to purchase articles for agricultural uses, is eligible or ineligible for discount according to the character of the articles. If the articles are in the nature of permanent or fixed investments, then it is not eligible; but if, on the other hand, they are articles for agricultural uses and have to be replaced from time to time, the farmer's note is eligible for discount as agricultural paper.

The distinction between agricultural paper and commercial paper is important in several respects: Agricultural paper having a maturity of

² *Federal Reserve Bulletin*, 6: 1179

³ *Ibid.*, 7: 545.

six months may be eligible, while commercial paper to be eligible can have a maturity of but three months; a farmer's note given in payment for articles or commodities to be used by the farmer for agricultural purposes is agricultural paper; but the purchase and sale of agricultural products is a commercial and not an agricultural transaction, and a note given to a farmer for agricultural products grown by him, is eligible, if at all, as commercial paper.⁴

LONG-TIME FUNDS AND GOVERNMENT BONDS

The Board's regulations, following the provisions of the Act, provide for the discount by Federal Reserve Banks of such notes, drafts, bills of exchange, trade acceptances, six months' agricultural paper and bankers' acceptances of short maturity and of commercial origin referred to therein, but such regulations, following and expressing the spirit of the Act, provide that a note, draft, or bill of exchange, the proceeds of which have been used for permanent or fixed investments, such as lands, buildings, machinery and other capital purposes, or which have been used, or are to be used, for investments of purely speculative character, or for the lending to some other borrower, shall not be eligible for discount.

Both the provisions of the Act and the regulations of the Board make eligible for discount obligations issued or drawn for the purpose of carrying or trading in bonds and notes of the government of the United States, when such obligations are of proper maturity. Further, the Federal Reserve Act was, in effect, amended by the War Finance Corporation Act, approved April 5th, 1918, whereby obligations of appropriate maturity, as

defined by the Federal Reserve Act, when secured by bonds of the War Finance Corporation, are made eligible for discount. However, notes, drafts or bills issued or drawn for the purpose of carrying or trading in other stocks and bonds are not eligible for discount.

Strict negotiability of instruments of commerce is one of the prime requisites of paper eligible for discount by a Federal Reserve Bank. This is for the reason that a member bank must endorse paper tendered for discount, not only for the purpose of placing the title thereof in the Federal Reserve Bank, but also for the purpose of assuming all the responsibilities of an endorser upon negotiable paper. To the end that such liability of member banks, as endorser, be preserved, the instrument tendered for rediscount must be strictly negotiable within the meaning of the law applicable to commercial paper in the particular jurisdiction.

The Federal Reserve Board has promulgated rules for the determination of the eligibility of paper for discount, which rules have to do merely with the method to be pursued by the Federal Reserve Banks in ascertaining the ultimate facts as to whether or not the paper is eligible under the provisions of the Act and the regulations of the Board; but such regulations are evidentiary in effect and have to do, not with the eligibility of the paper, but merely with the method of procedure in ascertaining its eligibility.

COMMERCIAL AND AGRICULTURAL PAPER ELIGIBLE FOR DISCOUNT

Notes secured by mortgage, if otherwise eligible, may be discounted.⁵ Inasmuch as notes payable "on or before" a given date are negotiable within the meaning of the Negotiable Instruments Act, in force in most of

⁴ *Ibid.*, 6: 1302.

⁵ *Ibid.*, 2: 679.

the states, and under the Law Merchant, such notes are eligible for discount.⁶ The assignment of an open account is not negotiable, and is not eligible for rediscount.⁷

A bill of exchange drawn by the seller on the purchaser of advertising space and accepted by such purchaser is a trade acceptance and is eligible for discount.⁸ The note of a farmer held by a member bank, given for the purpose of assisting the farmer to produce a crop or to fatten his cattle, is eligible for discount if of proper maturity, whether or not secured by mortgage.⁹ A note drawn for commercial purposes, otherwise eligible for rediscount, is not ineligible because it is secured by a mortgage on real estate.¹⁰ The notes of a water works company, the proceeds of which have been, or are to be used to provide funds for the pay roll, purchase of coal and the like, are eligible for discount.¹¹ The note of a packing company, the proceeds of which are used for the purchase of live stock for slaughter is not "based on live stock" within the meaning of Section 13 and is not eligible for discount if it has a maturity in excess of 90 days.¹² A certificate of participation in a note, which, itself, is eligible for discount, is not eligible.¹³ Water sold by an irrigation company to farmers and delivered through the company's ditches may be classed as "goods sold," within the meaning of the Board's regulations and a note representing the agreed purchase price thereof is eligible for discount.¹⁴ Natural gas actually sold and delivered is "goods sold" and a trade acceptance covering such is eligible for discount.¹⁵

The note of the owner of property

which is to be developed or built up, the proceeds of which note have been, or are to be used by him to pay for the work of developing or building, is not eligible for discount, but the note of an owner given in good faith to the contractor in actual payment of material and services furnished by him for the owner, may be considered technically eligible for discount as paper, the proceeds of which have been or are to be used for commercial or industrial purposes.¹⁶

Collateral notes of Federal Farm Loan Banks, secured by farm loan bonds or the note of a Joint Stock Land Bank, secured by its own bonds, are not eligible for discount.¹⁷ Federal Farm Loan Bank bonds are not eligible for discount, and are not, accordingly, eligible as collateral for member banks.¹⁸ A note, secured by paper eligible for discount, is not itself eligible for discount unless its proceeds have been used, or are to be used, for industrial, agricultural or commercial purposes.¹⁹ Under the present definitions of a trade acceptance, it seems that a draft drawn for an insurance premium would not be eligible for discount.²⁰ The note of a farmer given for a tractor to be used on his farm may be discounted as agricultural paper.²¹ A note given by a farmer for the purchase price of a commodity can be classed as agricultural paper eligible for rediscount when having a maturity in excess of ninety days, if the maker is to use the commodity for agricultural purposes, regardless of whether the note is discounted by the maker or the endorser; but if not intended for such use, then the paper is eligible for discount as commercial paper, if having a maturity not in excess of ninety days.²²

⁶ *Federal Reserve Bulletin*, 2: 394.

⁷ *Ibid.*, 2: 227.

⁸ *Ibid.*, 3: 116.

⁹ *Ibid.*, 3: 378.

¹⁰ *Ibid.*, 3: 158.

¹¹ *Ibid.*, 3: 527.

¹² *Ibid.*, 3: 616.

¹³ *Ibid.*, 3: 949.

¹⁴ *Ibid.*, 6: 949.

¹⁵ *Ibid.*, 4: 435.

¹⁶ *Ibid.*, 6: 699.

¹⁷ *Ibid.*, 6: 609.

¹⁸ *Ibid.*, 4: 33.

¹⁹ *Ibid.*, 4: 108.

²⁰ *Ibid.*, 4: 309.

²¹ *Ibid.*, 4: 309.

²² *Ibid.*, 4: 312.

A member bank having acquired eligible paper in due course from a non-member bank may discount such paper with a Federal Reserve Bank.²³ A note, the proceeds of which is used for tilling or draining farms, may be classed as agricultural paper and is eligible for discount.²⁴ A note of a non-member bank, secured by notes of the government of the United States, and given for the purpose of carrying or trading in such notes of the United States, is eligible for discount when presented by a member bank.²⁵ A member bank may obtain the discount of its paper secured by government bonds for a period as long as ninety days, by acting through another member bank, although a member bank, acting alone, may not tender its collateral note to the Federal Reserve Bank for a longer period than fifteen days.²⁶ Silos are permanent improvements, and notes given for their purchase are not eligible for discount.²⁷ Where a railroad company purchases supplies and accepts the draft of the seller and the seller discounts the draft with a member bank, such draft is eligible for discount.²⁸ The six months' maturity privilege as applied to agricultural paper does not apply to the sales a manufacturer of implements makes to a dealer for re-sale to a farmer.²⁹ The actual sale of goods, and not what is generally termed a conditional sale, must be the basis of a trade acceptance.³⁰

A draft drawn to cover the purchase price of goods sold, plus the cost of installing those goods, is eligible for discount.³¹ A note is not eligible for discount as commercial paper unless made and endorsed by a party to the

commercial transaction, out of which it arises.³² This is but another way of saying that the proceeds must be used in the first instance for a commercial purpose by the borrower. It is merely emphasizing the thought that paper to be eligible, must be issued or drawn under such circumstances that, in the normal course of business, there will automatically come into existence a fund available to liquidate each piece of paper, that fund being the final proceeds of the transaction out of which the paper arose.

A note of a grain dealer or other purchaser of grain, given to a grower for grain purchased for re-sale, is commercial paper and is to be discounted as such, even though the grower subsequently discounts the note and uses the proceeds for an agricultural purpose. The same principle applies to a draft drawn by the grower, and accepted by the purchaser, in whole or in part payment for grain purchased for re-sale.³³ Here is brought into play the rule that the transaction out of which an instrument arises in the first instance determines its classification, irrespective of any transaction in which the instrument may be subsequently negotiated.

A note given for the purchase of a motor truck by a farmer is clearly held to be eligible for discount, as agricultural paper, but notes or trade acceptances given in the purchase of motor trucks of a corporation engaged in the business of furnishing motor transportation are not eligible for discount, as such trucks represent in a large extent the corporation's capital investment.³⁴

Paper, the proceeds of which are to be used to make loans to third parties, is finance paper rather than commercial or agricultural paper and is not eligible

²³ *Ibid.*, 4: 520.

²⁴ *Ibid.*, 4: 743.

²⁵ *Ibid.*, 4: 743.

²⁶ *Ibid.*, 4: 863.

²⁷ *Ibid.*, 4: 971.

²⁸ *Ibid.*, 4: 974.

²⁹ *Ibid.*, 4: 1118.

³⁰ *Ibid.*, 5: 964.

³¹ *Ibid.*, 4: 310.

³² *Ibid.*, 7: 1079.

³³ *Ibid.*, 7: 1199.

³⁴ *Ibid.*, 7: 191.

for discount.³⁵ Where a cold storage company uses the proceeds of its notes to make advances to customers who have placed their goods in the company's warehouse to be sold by the company for the account of the customers, and the customers give the storage company their notes for the amount of these advances, and as security for such notes, pledge the warehouse receipts, and the storage company pledges the customers' notes and the warehouse receipts as collateral for their own notes, such notes are not eligible for discount.³⁶ Growers' drafts accepted by coöperative marketing associations are eligible for discount with Federal Reserve Banks, as agricultural paper, and may have a maturity not in excess of six months.³⁷ The note of an irrigation company cannot be classed as agricultural paper, but a farmer's note, given to an irrigation company in payment for a supply of water, may be regarded as agricultural paper.³⁸

Notes of corporations or associations engaged in packing and marketing fruits should not be classed as agricultural paper, but as commercial paper, and such notes are eligible when their maturities do not exceed ninety days. The business of such corporations or associations in the marketing of fruits is a commercial business rather than an agricultural business.³⁹

THE FUNCTION OF BANKERS' ACCEPTANCES

As already noted, Federal Reserve Banks may discount, for their member banks, bankers' acceptances. A bankers' acceptance is defined by the regulations of the Federal Reserve Board as "a draft or bill of exchange, whether payable in the United States or abroad, and whether payable in dollars or some

other money, of which the acceptor is a bank or trust company, or a firm, person, company or corporation engaged generally in the business of granting bankers' acceptance credits."

The practice of banks to make acceptances is practically as old as the business of banking, but the practice never came into modern use in the United States until after the enactment of the Federal Reserve Act. Prior to that Act the average American bank merely collected the idle funds of the community and loaned them and its own funds to its customers. The bank loaned capital and not credit. On the other hand, the chief merit and the distinguishing feature of European banking systems, especially in England, France and Germany, was found in the bank acceptances by which those banks loaned their credit. They standardized bills of exchange and added new power to them, so that by virtue of their credit quality these bills became, part of the circulating credit of the country. The European banks found the acceptance to be the cheapest form of credit instrument. It did not deplete cash holdings of the accepting bank and no reserve was needed to safeguard the risk. This acceptance power of European banks enabled them cheaply to finance export and import transactions and, doubtless, to a large extent explains why, prior to the Great War, all such financing was done by European banks to the utter exclusion of the American banks.

This salutary method of financing transactions was grafted on our system by the Federal Reserve Act and following that Act most of the states have conferred the acceptance power upon their state banks by specific provision, so that the granting of acceptances by banks has come to be a part of the general banking business in this country.

³⁵ *Federal Reserve Bulletin*, 6: 1176.

³⁶ *Ibid.*, 7: 308.

³⁸ *Ibid.*, 7: 964.

³⁷ *Ibid.*, 7: 1199.

³⁹ *Ibid.*, 7: 1312.

THE DISCOUNT AND PURCHASE OF BANKERS' ACCEPTANCES

The Federal Reserve Act and the regulations of the Federal Reserve Board made pursuant thereto, and the Acts of the various states, have safeguarded the granting of acceptances by member banks. Indeed it may be said in broad general terms that bankers' acceptances, which have had their origin in accordance with the limitations of the Act and regulations, if not of more than three months' maturity, exclusive of days of grace, are eligible for discount by Federal Reserve Banks.

Federal Reserve Banks may discount any bill drawn by a bank or banker in a foreign country or dependencies or insular possessions of the United States for the purpose of furnishing dollar exchange as provided in the Act and regulations of the Board, provided such draft has not more than three months' maturity, exclusive of days of grace.

Bankers' acceptances, to be eligible for discount, may involve: (1) the shipment of goods between the United States and any foreign country, or between the United States and any of its dependencies or insular possessions, or between foreign countries; (2) a shipment of goods within the United States; or (3) the storage of readily marketable staples.

When the acceptance is based on a shipment of goods between the United States and any foreign country, or between the United States and any of its dependencies or insular possessions or between foreign countries, shipping documents covering goods in process of shipment need not be attached to the draft drawn for financing the transaction. Neither is it essential that each draft cover specific goods actually in existence at the time of the acceptance, but, in order that said drafts be eligible for discount, it is

necessary either, (1) that shipping documents or documentary export draft be attached at the time the draft is presented for acceptance, or (2) if the goods have not been shipped, that there be in existence a *bona fide* contract providing for the exportation or importation of such goods and that the customer agree that the accepting bank will be furnished in due course with shipping documents or with exchange arising out of the transaction. A contract between principal and agent will not be considered such *bona fide* contract.

In the case of shipment of goods within the United States, the regulations provide that shipping documents conveying security title should be attached to the draft at the time of its acceptance.

A bankers' acceptance based upon the storage of readily marketable staples must be secured at the time of acceptance by a warehouse, terminal or other similar receipt, conveying security title to such staples, and the acceptor must remain secured throughout the life of the acceptance.

The discretion of the Board with reference to bankers' acceptances and the investment therein of the Federal Reserve Bank funds is probably broader than its discretion with reference to notes, drafts, trade acceptances, and other bills of exchange.⁴⁰

The rule of the Board with reference to furnishing shipping documents in export or import transactions is not met by the furnishing of freight receipts or non-negotiable copies of bills of lading.⁴¹

Shipping documents are legally in the possession of an accepting bank when they are held by its correspondent or by some other independent party, as its agent, both in domestic and foreign transactions.⁴² The period

⁴⁰ *Ibid.*, 7: 70.

⁴¹ *Ibid.*, 7: 191.

⁴² *Ibid.*, 7: 191.

for which drafts may be accepted in the first instance should be approximately the same as that required to complete the shipment and finance the transaction involved.⁴³ A draft drawn by an American exporter, covering cotton consigned to his European agent, may be eligible for discount, when shipping documents covering goods actually shipped are attached at the time the draft is presented for acceptance, although the goods covered by the documents have not been sold, but are merely shipped on consignment to the agent abroad.⁴⁴

A Federal Reserve Bank may purchase a bankers' acceptance from the drawer or even from the accepting bank, but there is no obligation upon a Federal Reserve Bank to purchase paper offered it, even though the paper is technically eligible.⁴⁵ Where a farmer draws a draft on his local bank for three or four months, secured by bills of lading covering the shipment of cattle to the farmer for feeding, and the local bank accepts the draft and the farmer then discounts it with another bank, such draft is eligible for discount if it has a maturity not in excess of three months.⁴⁶

Bankers' acceptances, growing out of export or import transactions, having a maturity of not more than six months may be purchased in the open market by Federal Reserve Banks.⁴⁷ The "shipping documents" to be furnished banks accepting drafts growing out of export or import transactions mean an order bill of lading, or a straight bill of lading, whichever is issued by the carrier in the particular case. They do not include freight receipts or mere copies of original bills of lading, but these documents may be held by a correspondent or agent.⁴⁸ A

bankers' acceptance drawn by a coöperative marketing association, secured by warehouse receipt covering non-perishable agricultural commodities stored in warehouses independent of the association, is eligible for discount. The acceptance of drafts, secured by bills of lading, for the primary purpose of providing the borrower with working capital during the period required to manufacture and re-sell the goods covered by the bills of lading, is an abuse of a domestic acceptance privilege.⁴⁹ Drafts drawn by the purchaser of goods and secured at the time of acceptance by bills of lading covering the goods bought are not eligible unless the proceeds are to be used to pay for the goods.⁵⁰

A bankers' acceptance secured by a warehouse receipt covering an automobile or automobile tires is not secured by "readily marketable staples" and is not eligible for discount, but an acceptance secured by a bill of lading covering an automobile or automobile tires in the process of shipment, providing the acceptance otherwise complies with the terms of the law or the regulations of the Board, is eligible for discount.⁵¹ A bankers' acceptance is not eligible for discount if, at the time of its acceptance, the period required for a conclusion of the transaction out of which the original draft was drawn, shall have elapsed.⁵² A draft drawn abroad, payable in the United States in dollars, and secured by a warehouse receipt covering readily marketable staples stored in a warehouse in a foreign country, is eligible for acceptance by a member bank and for discount by a Federal Reserve Bank, if of appropriate maturity.⁵³

The Federal Reserve Board has defined a "readily marketable staple" as

⁴³ *Federal Reserve Bulletin*, 7: 308.

⁴⁴ *Ibid.*, 7: 419.

⁴⁵ *Ibid.*, 7: 815.

⁴⁶ *Ibid.*, 7: 699.

⁴⁷ *Ibid.*, 7: 545.

⁴⁸ *Ibid.*, 7: 191.

⁴⁹ *Ibid.*, 6: 1301.

⁵¹ *Ibid.*, 6: 65.

⁵⁰ *Ibid.*, 3: 380; 6: 66.

⁵² *Ibid.*, 5: 858.

⁵³ *Ibid.*, 5: 740.

an article of commerce, agriculture or industry, of such uses as to make it the subject of constant dealings in ready markets, with such frequent quotations of prices as to make the price easily and definitely ascertainable, and the staple itself easy to realize upon by sale at any time.⁶⁴

Under the terms of Section 13 of the Act, any draft or bill of exchange, which a member bank has the power to accept under the provisions of that section, is technically eligible for rediscount by a Federal Reserve Bank.⁶⁵

An accepting bank, secured in a domestic transaction by shipping documents or warehouse receipts, at the time of acceptance may release the shipping documents or warehouse receipts prior to payment, providing the draft or drafts accepted for one person do not exceed 10 per cent of the capital and surplus of the accepting bank.⁶⁶ Member banks may legally accept drafts drawn against them, secured by sugar placed in bond under transit entry and warehouse receipt issued by the collector in negotiable form.⁶⁷ National banks may not accept a draft which is secured by a chattel mortgage on cattle.⁶⁸ Where a dealer is engaged in purchasing the same character of goods for export and domestic use, a member bank accepting his draft drawn to finance an export transaction should require proper assurance that the proceeds of such draft will be used for the purchase of goods for export and that the acceptance will be paid out of the proceeds of sales of goods exported.⁶⁹

A trust receipt in the hands of an accepting bank which permits the purchaser of the goods to procure control of the goods is not actual security, within the meaning of the Act.⁶⁰ One in the possession of a bill of lading cov-

ering a domestic shipment of goods may not procure an acceptance thereon by a member bank without regard to the use to which the proceeds of the draft are to be put. There must be more than a casual connection between the drawing of the draft and the transaction involved.⁶¹ A warehouse receipt, to be appropriate security for an acceptance, should be issued by a warehouse which is independent of the borrower.⁶² Gold bars may be properly considered as "goods" and, accordingly, sixty day bills, when accepted by banks against such a shipment, would be eligible for discount. Exchange drawn to finance a shipment of gold coin from the United States to Europe or Canada, is eligible for purchase when otherwise in conformity with the Act and regulations.⁶³

A bankers' acceptance secured by a bill of sale of stock on hand is not eligible for discount.⁶⁴ A bankers' acceptance secured by chattel mortgage on cattle is eligible for discount⁶⁵ but the Board has ruled that a national bank may not accept a draft so secured.⁶⁶

PAPER MUST BE KEPT LIQUID

The conservation of the strength of the Federal Reserve System is dependent upon the strict adherence of the Federal Reserve Banks to the rules governing the eligibility of paper for discount. If those rules are adhered to, the portfolios of the Reserve Banks will be filled with liquid securities maturing from day to day, thus bringing into the banks a continuous flow of money to meet the demands of commerce and trade. On the other hand, if those rules are departed from, the portfolios of the banks will become clogged with "frozen credits," and the purpose for which the Reserve Banks were organized will be defeated.

⁶⁴ *Ibid.*, 5: 652.

⁶⁷ *Ibid.*, 4: 520.

⁶⁵ *Ibid.*, 5: 255.

⁶⁸ *Ibid.*, 4: 437.

⁶⁶ *Ibid.*, 4: 634.

⁶⁹ *Ibid.*, 4: 314.

⁶⁰ *Ibid.*, 3: 881.

⁶¹ *Ibid.*, 3: 380.

⁶⁴ *Ibid.*, 2: 684.

⁶² *Ibid.*, 3: 30.

⁶⁵ *Ibid.*, 2: 65.

⁶³ *Ibid.*, 3: 29.

⁶⁶ *Ibid.*, 4: 309.

Amendments to the Federal Reserve Act

By WALTER S. LOGAN

General Counsel, Federal Reserve Board

THE Federal Reserve Act has been amended a number of times since it became a law on December 23, 1913, but none of the amendments can be said to have affected any fundamental change in the structure or operation of the Federal Reserve System. Experience has indicated how the purposes of the framers of the Act could be advanced by further legislation, and how the Federal Reserve System could best serve the banks and the business of the country; Congress in the light of this experience has modified many of the provisions of the original Act. But the principles upon which the Act was based, the functions of the Federal Reserve Banks and their relation to the member banks and to business and commerce, remain essentially unchanged. It will not be attempted in this chapter to discuss every amendment, for many of them are not considered of sufficient general interest to warrant mention in a work of this character; in many cases they relate solely to the internal administration of the Federal Reserve Banks.¹

ACCEPTANCE POWERS OF NATIONAL BANKS

The first important amendment was the Act of September 7, 1916. Probably the most far reaching change effected by this amendment was with respect to the acceptance powers of national banks. The Act, as originally passed, authorized member banks to accept only drafts and bills of exchange "growing out of transactions involving

the importation or exportation of goods." National banks were without authority to accept drafts in domestic transactions until, by the Act of September 7, 1916, they were given authority to accept drafts or bills in transactions involving the domestic shipment of goods or the storage of readily marketable staples, subject to certain prescribed conditions.

These conditions were that the bank issuing acceptances in such domestic transactions must be secured at the time of acceptance by shipping documents covering the goods in process of shipment, or by warehouse receipts or other similar documents covering the readily marketable staples in storage. There never has been any similar requirement of law with respect to acceptances in foreign transactions and it is important to note this distinction, for it is the basis for a more liberal practice in connection with the issue of foreign acceptances than has been adopted with respect to domestic acceptances.

Because of the requirement that documents representing the goods or staples must be in the possession of the accepting bank at the time of acceptance, it is obviously impossible that domestic acceptances be issued except when the goods or staples are identified and in process of shipment or in storage. The issuance of acceptances to finance foreign transactions has, however, been authorized prior to the commencement of the actual export or import shipment, in cases where the customer for whom the acceptances are issued is under a definite contract to export or import goods in the future. This has been authorized upon the

¹ For a complete list of amendments prior to January 1, 1921, see the Annual Report of the Federal Reserve Board for the year 1920, pages 316-326.

theory that the export or import transaction commences with the execution of the contract and that the subsequent acts in fulfilment of that contract are inherent parts of that transaction, and may, therefore, be financed by means of acceptances.

The Act of September 7, 1916, further broadened the authority of national banks to issue bankers' acceptances by permitting them, under regulations of the Federal Reserve Board, to accept ninety day drafts or bills drawn by banks or bankers in foreign countries or dependencies or insular possessions of the United States for the purpose of furnishing dollar exchange as required by the usages of trade in those places. Under the authority of this amendment the Federal Reserve Board has granted permission to member banks applying therefor to accept ninety day dollar exchange drafts drawn by banks or bankers in South American countries and in dependencies and insular possessions of the United States.

OTHER PROVISIONS OF THE AMENDMENT OF SEPTEMBER 7, 1916

Another important feature of the Act of September 7, 1916, was that it authorized Federal Reserve Banks to make advances for fifteen days to member banks on the promissory notes of the member banks when such notes are secured by paper which is eligible for rediscount or purchase or by bonds or notes of the United States. The provisions of the original Act did not permit Federal Reserve Banks to make advances or loans but permitted them only to rediscount eligible paper previously discounted by member banks.

The Act of September 7, 1916, amended Section 25 of the Federal Reserve Act so as to authorize national banks with a capital and surplus of not

less than \$1,000,000 to invest in the stock of foreign corporations. This amendment will be referred to in connection with the amendments of September 17, 1919, and December 24, 1919, which deal with the same general subject matter.

AMENDMENT OF JUNE 21, 1917

The second important amendment to the Act was that of June 21, 1917. Up to this time few state banks had joined the Federal Reserve System, largely because, by becoming members under the provisions of Section 9 of the original Act, they were made subject to the provisions of the National Bank Act, which prohibit national banks from making loans to any one person in excess of 10 per cent of the bank's capital and surplus, and were required to make reports of condition to the Comptroller of the Currency; also because Section 21 of the original Act required the Comptroller to examine state member banks at least twice a year. The argument was also made that under the terms of the original Act a state bank once having joined the Federal Reserve System had no right to withdraw. In order to make membership in the System more attractive to state banks and trust companies, Section 9 was rewritten. This section as it now reads exempts state bank and trust company members from supervision or examination by the Comptroller of the Currency and provides that "subject to the provisions of this Act and to the regulations of the board made pursuant thereto, any bank becoming a member of the Federal Reserve System shall retain its full charter and statutory rights as a State bank or trust company, and may continue to exercise all corporate powers granted it by the state in which it was created." It also contains a provision specifically authorizing

withdrawal from membership upon six months' notice.

The Act of June 21, 1917, also amended the first paragraph of Section 13 of the Act so as to authorize non-member banks, irrespective of whether their capital is sufficient to make them eligible for full membership, to clear through the Federal Reserve Banks of their districts checks deposited with them, provided that they maintain balances with such Federal Reserve Banks sufficient to offset the items in transit held for their accounts. While this privilege has not been availed of by non-member banks to any material extent, apparently because non-member banks are able to obtain the full benefits of the Federal Reserve check clearing facilities by sending checks deposited with them to correspondent member banks which in turn clear such checks through their Federal Reserve Banks, and while from a strictly legal standpoint the Act of June 21, 1917, in the form in which it was finally enacted, did not have any important bearing upon the check clearing and collection functions of Federal Reserve Banks, nevertheless a brief discussion of the subject of check clearing and collection seems appropriate at this point because it was discussed at length in both the Senate and the House of Representatives when Congress had the preliminary drafts of the bill under consideration, and because the provision added by this Act at the end of the first paragraph of Section 13 is frequently referred to in discussions relative to this general subject.

LEGAL ASPECT OF THE FEDERAL RESERVE CLEARING SYSTEM

In July, 1916, a country wide Federal Reserve check clearing and collection system was instituted, each member bank being required to remit at par for

all checks drawn upon it cleared through the Federal Reserve Banks. This was an inter-district as well as an intra-district system, the exclusively intra-district clearing systems, which had previously been established but membership in which had been optional with each member bank, having proved unsatisfactory. Simultaneously with the establishment of the country wide clearing system, the Federal Reserve Bank of Boston took over the country collection department of the Boston Clearing House and was able to collect checks on all banks in New England at par, that is, at the full face amount without the deduction of any exchange charge by the drawee banks. In the other districts it was not possible to collect at par checks drawn on all non-member banks because many of them desired to continue their past practice of charging exchange when remitting for their checks. From the first, however, it was contemplated that the Federal Reserve check clearing and collection system should be extended gradually until it furnished facilities for collecting at par checks on all banks in the country, thus eliminating the enormous tax with which business and commerce has been burdened by reason of the practice of making exchange charges.

In their origin there was some justification for exchange charges because such a charge then represented an actual expense which the remitting bank incurred in having currency transported from where the bank was located to the place of business of the holder of the check who had received it in payment of a debt. At the present time, however, there is no necessity for the actual transportation of currency between Federal Reserve districts, since the Federal Reserve System, through its leased wires connecting all Federal Reserve Banks and

branches and through its Gold Settlement Fund at Washington, offers facilities for the instantaneous transfer of available funds by mere book entry. The Federal Reserve System pays the entire cost of maintaining these leased wires and the Gold Settlement Fund, and the Federal Reserve Banks pay the cost of transporting currency from member and non-member banks in their districts if such member or non-member banks desire to make remittances for their checks in this manner. Consequently, the justification for exchange charges has ceased to exist and to the extent that such charges are still made they constitute a tax paid by business and commerce for which no compensating service is received.

Following the policy of extending the Federal Reserve check clearing and collection system the Federal Reserve Banks undertook to induce non-member banks to remit to them at par, and when able to make satisfactory arrangements, they also undertook to collect checks drawn on non-member banks which did not remit at par by having such checks presented at the counters of the drawee banks.

This practice caused some opposition on the part of the non-member banks which still desired to charge exchange and as a result of this opposition a provision was inserted in the bill pending in Congress in the spring of 1917 to the effect that nothing in the Federal Reserve Act should be construed as prohibiting a member or non-member bank from making reasonable exchange charges. The Senate passed the bill with this provision in it, but the sentiment in favor of par collection finally prevailed and in the bill as agreed to in conference between the committees of the Senate and the House, and in the Act as finally approved, this particular provision was

in effect nullified by the addition at the end of the paragraph in question, the first paragraph of Section 13, of the following clause: "but no such charges shall be made against the Federal Reserve Banks."

The policy of extending the Federal Reserve check clearing and collection system has been continued until now Federal Reserve Banks are able to collect checks drawn on about 28,000 out of a total of approximately 30,000 banks in the United States. The claim is made by some non-member banks which still persist in their desire to charge exchange when remitting for checks, that the final clause of Section 13 of the Federal Reserve Act should be construed as prohibiting Federal Reserve Banks from undertaking to make counter presentation of checks drawn on non-member banks which have not agreed to remit at par to the Federal Reserve Banks and this issue is involved in suits which have been instituted by such non-member banks against several of the Federal Reserve Banks.

AMENDMENT OF RESERVE REQUIREMENTS

Another important amendment accomplished by the Act of June 21, 1917, was the amendment to Section 19 of the Act changing the character and amount of the required reserves of member banks.

Section 19 of the Federal Reserve Act as amended by the Act approved August 15, 1914, before the Federal Reserve System was put into actual operation in November, 1914, provided that member banks in central reserve cities should maintain reserves equal to 18 per cent of their demand deposits and 5 per cent of their time deposits, and that member banks in reserve cities should maintain reserves equal to 15 per cent of their demand deposits

and 5 per cent of their time deposits, and that other member banks should maintain reserves equal to 12 per cent of their demand deposits and 5 per cent of their time deposits. Each class of member banks was required to keep only a part of its reserves in the form of balances with Federal Reserve Banks, another part being kept in the vaults of the member banks, and the member banks being given the option to carry the remainder either in their own vaults or as balances. This being the state of the law, a large proportion of the gold supply of the country remained in the vaults of member banks, where it constituted a part of the banks' lawful reserves.

The purchases in this country by the belligerent nations resulted in rapid accretions to this nation's gold supply and made it seem desirable to have a more effective means of controlling a possible over-extension of loans based upon these new accretions. On the other hand, the possibility of the rapid outflow of this gold at some time in the future made it necessary to provide for the most effective use of the gold supply, so that withdrawals might be arranged without forcing any violent contraction of loans and without causing any undue disturbance to legitimate business. For the accomplishment of these ends the mobilization and concentration of gold in the Federal Reserve Banks seemed the most effective means.

The first legislative move in this direction was the addition by the Act of September 7, 1916, of subsection 11(m) of the Federal Reserve Act providing that the Federal Reserve Board may permit member banks to carry in their Federal Reserve Banks any portion of their reserves theretofore required by Section 19 of the Federal Reserve Act to be carried in their vaults. When this country became

directly involved in the War the question of the mobilization of the gold reserves of the country became still more important and was the primary cause of the enactment of the Act of June 21, 1917. By this Act member banks were required to maintain the entire amount of their reserves in the form of balances with Federal Reserve Banks, the total reserves required against demand deposits being reduced to 13, 10 and 7 per cent for member banks in central reserve cities, reserve cities, and country districts, respectively, and the total reserves required against time deposits being reduced to 3 per cent for all member banks.

TRUST POWERS OF NATIONAL BANKS

After June, 1917, the Federal Reserve Act was not amended until September 26, 1918. This Act effected changes in a number of sections but the only one of general importance was the revision of Section 11 (k) relative to trust powers by national banks.

Under this section in its original form the Federal Reserve Board was authorized merely to grant to national banks "when not in contravention of state or local law, the right to act as trustee, executor, administrator, or registrar of stocks and bonds." National banks opening up trust departments, in accordance with authority granted to them pursuant to this section, were limited to the exercise of the four powers specifically enumerated, although competing state banks and trust companies might be permitted to exercise other fiduciary powers. Furthermore, the laws of some states specifically, or by necessary implication, prohibited the exercise of any fiduciary powers by national banks, so that it was "in contravention" of state law for national banks to exercise such powers, although competing state

banks might do so under the laws of the state. It became more and more apparent that national banks were laboring under a serious handicap in their competition with state institutions in the exercise of trust powers, and the amendment of September 26, 1918, was designed to put national banks upon equal terms with competing state institutions.

To this end the section was amended so as to include among the powers which the Federal Reserve Board could grant, the power to act as guardian of estates, assignee, receiver, committee of estates of lunatics, or in any other fiduciary capacity in which competing state banks are permitted to act. A provision was also inserted to the effect that whenever the laws of a state permit the exercise of fiduciary powers by competing state corporations, it shall not be deemed to be in contravention of state law for national banks to exercise such powers. Various other provisions were inserted to insure competition upon equal terms between national banks and competing state corporations, including that contained in the final paragraph of the section as amended to the effect that no permit shall be issued to any national bank having a capital and surplus less than the capital and surplus required by state law of state institutions exercising fiduciary powers.

The constitutionality of the original Section 11 (k) was upheld by the Supreme Court of the United States in the case of *First National Bank v. Union Trust Company*, 244 U. S. 416, in which it was held that Congress had power to grant to national banks authority to act in fiduciary capacities. The construction of Section 11 (k) as amended has been involved in a number of more recent suits. These suits have established that it is beyond the power of any state legislature to discriminate against national banks by prohibiting

such banks from exercising fiduciary powers and that it makes no difference whether such discrimination is attempted by an affirmative prohibition against the exercise of fiduciary power by national banks or by withholding from the courts the powers to appoint national banks in fiduciary capacities.

DISCOUNT LIMITATION ON SINGLE BORROWER

The Act of March 3, 1919, amending the Federal Reserve Act, was of importance to member banks because it substituted for the then existing Section 11 (m), which had become obsolete, a new Section 11 (m), authorizing the Federal Reserve Board to permit Federal Reserve Banks to discount for member banks the paper of a single borrower up to 20 per cent of the member bank's capital and surplus, provided that the paper is secured by United States bonds or notes issued since April 24, 1917, or by United States certificates of indebtedness. Under the terms of Sections 9 and 13 the amount of paper of any one borrower which a Federal Reserve Bank may discount for any one member bank is limited generally to 10 per cent of the member bank's capital and surplus.

Section 11 (m) was intended as a temporary measure to assist in the absorption by the investing public of the securities issued by the government during the War, and according to its terms the section ceased to be effective after December 31, 1920. This process of absorption was not deemed to have been completed by that date, however, and section 11 (m) was re-enacted with a slight modification by an Act of Congress approved February 27, 1921, to be effective until October 31, 1921.

FOREIGN BANKING AMENDMENTS

Acts were approved September 17, 1919, December 24, 1919, and June

14, 1921, all relating to the same general subject matter, namely, the investment by national banks in stock of corporations engaged in foreign banking and other international financial operations, and the organization and operation of such corporations under Federal law and subject to Federal supervision. After the close of the War it became apparent that the adequate financing of foreign trade would require credit facilities of a kind which could not properly be furnished by banks doing a strictly commercial banking business, and that such special facilities could be furnished in a large way only by corporations with authority to purchase foreign securities and paper representing long term credits, and with authority to issue and sell to the public their own debentures secured by such securities and long-term paper.

The Act of September 7, 1916, had amended Section 25 of the Federal Reserve Act so as to authorize the larger national banks, that is banks with capital and surplus of not less than \$1,000,000, to invest in the stock of "banks or corporations . . . principally engaged in international or foreign banking." There seemed to be some doubt, however, whether this authority to invest in stock of banks or corporations engaged in banking gave the right to invest in stock of these debenture-issuing or investment corporations. Furthermore, it seemed desirable for the encouragement of such corporations to authorize investments in their stock by all national banks, both large and small. Consequently, the Act of September 17, 1919, was passed authorizing national banks until January 1, 1921, and without regard to the amount of their capital and surplus, to invest in the stock of corporations "principally engaged in such phases of international or foreign financial operations as may

be necessary to facilitate the export of goods, wares or merchandise from the United States or any of its dependencies or insular possessions to any foreign country."

Section 25, as thus amended, in terms authorizes national banks, upon the conditions and subject to the limitations therein stated, to invest in the stock of banks or corporations, of the specified kinds, which are "chartered or incorporated under the laws of the United States or any State thereof"; but, as a matter of fact, no provision was made for the incorporation under Federal law of such banks and corporations until the enactment of the so-called Edge Act, approved December 24, 1919.

This Act added to the Federal Reserve Act a section, designated Section 25 (a), which authorizes the organization of corporations "for the purpose of engaging in international or foreign banking or other international or foreign financial operations," thus permitting the Federal incorporation of both types of corporations referred to in Section 25, that is, banks doing a commercial banking business, and corporations issuing debentures and doing an investment business. The Act also describes the powers of such banks and corporations and gives to the Federal Reserve Board full power to examine, supervise and regulate their operations.

Section 25 (a) as originally enacted required that corporations organized under it should have a capital of not less than \$2,000,000, one-quarter of which must be paid in before the corporation is authorized to commence business, and the balance in ten per cent installments at the rate of one every two months. This requirement was modified by the Act approved June 14, 1921, which provides, in effect, that a corporation with an

authorized capital in excess of \$2,000,000 may apply for the consent of the Federal Reserve Board that such excess be paid in on call of the board of directors, provided, that in all events 25 per cent of the total authorized capital must be paid in before the corporation commences business.

THE SLIDING SCALE AMENDMENT

Finally, the Act of April 13, 1920, should be mentioned. Subsection (d) of Section 14 of the Federal Reserve Act authorized every Federal Reserve Bank to establish, subject to review and determination by the

Federal Reserve Board, rates of discount for each class of paper. The Act of April 13, 1920, added to this section language specifically providing that such rates "may be graduated or progressed on the basis of the amount of the advances and discount accommodations extended by the Federal Reserve Bank to the borrowing bank." The purpose of this amendment was, of course, to give to the Federal Reserve Banks and the Federal Reserve Board clear authority to require member banks habitually borrowing in excess of their legitimate requirements to pay higher discount rates for their excess borrowings.

Preparation for War and the Liberty Loans

By J. HERBERT CASE

Deputy Governor, Federal Reserve Bank of New York

AT the entrance of the United States into the World War in 1917 the readjustment of our credit and financial system to meet the unusual demands of the Public Treasury devolved in a large measure upon the Federal Reserve Banks. The financial activities of the government were soon to be extended upon a scale never before equalled by any country and the financial resources of the country were to be assembled and directed toward one purpose, winning the War. To accomplish this purpose would require highly developed sales organizations which would extend to every county and village in the country, and elaborate machinery for distributing the securities and collecting and disbursing the funds according to the Treasury's needs. More fundamental, however, was the necessity that our banking system should be able to meet the enlarged demands for credit incident

to war financing, without unduly curtailing the credit needs of commerce and industry.

PREPARATION FOR WAR BY RESERVE BANKS

The announcement of the entrance of the United States into the War, however, did not find the Federal Reserve Banks wholly unprepared to meet the new responsibilities. Precautions had been taken early in the year to maintain the Federal Reserve Banks in a strong condition with regard for the disturbed conditions of the world and the changing economic conditions in this country. This country, heretofore a debtor country, had become a creditor nation; gold was flowing in, and foreign securities were being marketed here in increased amounts so as better to permit belligerent countries to pay for heavy purchases of goods, purchases so heavy, in

fact, that there had already developed a feverish business activity. A change in affairs was foreseen and heavy credit demands anticipated in the eventuality of either our participation in the War or the conclusion of peace, and the opportunity was taken to fortify and strengthen the position of the Federal Reserve Banks.

Unnecessary expansion of credits was checked and a reduction was effected in the holding of such bonds and warrants as had previously been acquired primarily for the sake of income. The beginning of April, 1917, found the Federal Reserve Banks in a very strong position; the holdings of municipal warrants had been reduced to small proportions, the total earning assets of the Federal Reserve Banks had gradually been reduced from \$221,896,000 to \$167,994,000 since the beginning of the year and the reserve ratio of the twelve Federal Reserve Banks was about 85 per cent. Moreover, the report of the Comptroller of the Currency and of state banking authorities showed the banks of the country to be in a strong condition.

IMPOUNDING GOLD

In order that they might be prepared for any emergency, the Federal Reserve Banks, realizing their responsibilities as the guardians of the country's reserves, had adopted the policy of gradually building up their gold holdings in order that they might be used as a basis of credit expansion. There was a demand from the banks and the public for the new clean notes being issued by the Federal Reserve Banks, and the opportunity was taken to exchange these notes for gold and gold certificates. In issuing Federal Reserve notes, however, it was necessary to deposit as collateral with the Federal Reserve agent eligible commercial paper equal to 100 per cent of the

notes issued; but in the early days of the System the available volume of eligible paper was limited. Therefore, in order to make the exchange, it was necessary to adopt a circuitous method which may be described as follows: The Federal Reserve Bank of New York, for example, would pledge \$100,000 of commercial paper, obtaining in exchange Federal Reserve notes, and would then, as the Act authorized it to do, deposit gold to retire its liability for the notes and withdraw the paper. This operation would be repeated over and over again until enough Federal Reserve notes had been obtained to meet the demands for new currency. Moreover, the gold held as security for notes could not be used except as a 100 per cent fund to provide for their redemption and was held by the Federal Reserve agent specifically for that purpose.

For the purpose of further strengthening the System, the Federal Reserve Board in January, 1917, recommended a number of amendments to the Federal Reserve Act, and they were again transmitted to Congress during April and were adopted on June 21, 1917, substantially as recommended by the Board. One object sought by these amendments was to enable the Federal Reserve Banks more effectively to control the country's gold supply, and therefore the process of issuing notes was simplified by permitting their issuance either against gold or eligible paper, or both, as collateral. The Act as amended not only permitted gold to be pledged directly for notes, but allowed this gold to serve as the reserve required against the notes. The effectiveness of the gold reserves held by the Federal Reserve Banks was greatly increased and the adaptability of the System to the changing requirements of the public enhanced. After the passage of this amendment and our

entrance into the War, as a part of the redoubled efforts to impound the country's gold where it would serve its most useful purposes, both member and non-member banks were repeatedly urged to transfer their gold as it accumulated to the Federal Reserve Banks, and the appeal met with a hearty response.

The provisions concerning member

accounts with them for the clearing and collecting of their checks.

The success of the movement to accumulate gold is shown in Table I which gives for three years the country's monetary stock of gold, the gold holdings of the Federal Reserve Banks and the gold in general circulation, *i.e.*, outside the Treasury and the holdings of the Federal Reserve Banks:

TABLE I

TOTAL MONETARY STOCK OF GOLD, GOLD HOLDINGS OF FEDERAL RESERVE BANKS, GOLD IN CIRCULATION, 1917, 1918, 1919

Date	Total monetary stock of gold in the country	Gold held in U. S. Treasury	Gold holdings of Federal Reserve Banks	Gold in Circulation
January 1, 1917.....	\$2,864,842,000	\$233,945,000	\$737,787,000	\$1,893,110,000
January 1, 1918.....	3,040,439,000	212,231,000	1,558,116,000	1,270,092,000
January 1, 1919.....	3,080,510,000	327,239,000	1,916,656,000	836,615,000

banks reserves were likewise changed, first by reducing their required reserves to 13, 10 and 7 per cent for central reserve city, reserve city and country banks, respectively, and second, by requiring that their entire reserves should be carried as cash balances with the Federal Reserve Banks. These changes both augmented the gold holdings and increased their efficiency with a commensurate increase in the discount power of the Federal Reserve Banks. Member banks could no longer count as a part of their legal reserves, cash in their own vaults, and the privilege of country banks to keep a part of their reserves with reserve city banks was discontinued several months prior to the date originally fixed for such discontinuance. These changes increased the cash holdings of the Federal Reserve Banks by about \$250,000,000. At the same time non-member banks were encouraged to deposit their cash reserves with the Federal Reserve Banks and to carry

MOVEMENT FOR A GREATER MEMBERSHIP

As originally provided in the Act, all national banks are necessarily members of the Federal Reserve System but prior to the entrance of the United States into the War, the membership of the Federal Reserve Banks included less than fifty state banks and trust companies, and the combined resources of member banks were approximately one-half of the total banking resources of the country. Obviously this was a weak point in the System. In meeting a great credit strain or unusual financial problems, it was believed that the Federal Reserve Banks would be called upon to support indirectly the non-member banks through credits granted to member banks, which, in turn, would aid the state institutions.

In view of the country's needs and the part played by the Federal Reserve Banks in carrying on the War, it was soon generally recognized that a moral

and patriotic obligation rested upon state bankers to support the system. Immediately following the declaration of war there was a decided movement among the stronger state institutions toward obtaining membership, a movement accompanied by some pressure on the part of the larger member banks which were desirous of being relieved from the duty of financing these non-member institutions in case of emergency. The Federal Reserve Board had adopted a liberal policy in its regulations both as to terms of admission of state banks and as to their rights to withdraw at their discretion, but there existed among these institutions a feeling of uncertainty and a lack of assurance that these rulings would be permanent without legislative sanction. The action of Congress, therefore, in passing the amendment approved June 21, 1917, giving to state institutions the assurance that they might become members of the System and carry on their activities substantially as before and, in addition, giving them the definite right to withdraw from the System on six months' notice, accelerated the movement to obtain membership.

The climax to this movement for a greater membership was a letter from the President on October 13, 1917, to state banks and trust companies, in which he urged a complete mobilization of the banking reserves of the United States in order to meet the great financial requirements imposed upon the country by the War. In this appeal the President said in part: "I believe that coöperation on the part of banks is a patriotic duty at this time, and that membership in the Federal Reserve System is a distinct and significant evidence of patriotism." Under these various incentives and influences many of the stronger state institutions filed applications and were admitted

to membership. The progress of the movement towards greater unification of the banking system is shown by the fact that at the end of 1917 the membership of state banks and trust companies had increased to 250 and the Board in its Annual Report for that year estimated that the member banks represented approximately 75 per cent of the commercial banking assets of the country.

THE LIBERTY LOANS

While the President and Congress were wrestling with the problem of reorganizing our banking system, it had become generally recognized that the method of handling the government's finances through the Independent Treasury System was antiquated and the framers of the Federal Reserve Act happily inserted a clause authorizing the Secretary of the Treasury to require the Federal Reserve Banks to act as fiscal agents. At the beginning of 1916 the Reserve Banks began to act as fiscal agents of the government, but prior to our entrance into the War, their services had been limited to receiving deposits of receipts from customs and internal revenue and paying checks and warrants drawn by and on the Treasurer of the United States. But when the Treasury was confronted with the problem of raising and disbursing the huge sums necessary to carry on the War, the Reserve Banks became the chief agencies through which it operated; they became the administrative centers of the various Liberty Loan committees in addition to performing the minor fiscal agency functions. Floating the Liberty Loans was the paramount financial undertaking of the War; it was a task, the accomplishment of which necessitated arousing public opinion to a realization of the needs of the government and enlisting the support of every American.

SELLING LIBERTY BONDS

Perhaps I can best explain the methods used in selling government bonds by a brief description of the organization and work of the Liberty Loan committees in the Second District, with which I am most familiar. During the First and Second Liberty Loans, the responsibility for selling bonds in the second district rested largely upon volunteers from the various bond houses, banks and corporations which generously and patriotically contributed the services of their staffs. It was soon seen, however, that one loan was hardly completed before preparations for another one were being made, and it was realized that with each successive loan, as the novelty wore off, a more intensive campaign and more unified organization would be requisite in order to induce the public to do the necessary amount of saving and investing. Consequently a fixed establishment of paid employes was built up.

The central Liberty Loan Committee was the center and directing force around which the whole organization revolved. As finally perfected, it consisted of fifteen members, many of whom were heads of some of the largest banks and banking houses in New York. The chairman of the Committee was the Governor of the Federal Reserve Bank of New York. The Committee met frequently during the progress of the loans and determined the policies to be followed and the nature of the appeals to be made to the public.

One of the members of the Liberty Loan Committee was chairman of the distribution organization which had direct charge of sales and which was made up of bankers or partners in bond houses. The permanent staff of the distribution committee was headed by the director of distribution,

who was the executive in charge of the immense and very active bond-selling organization.

This district, with the exception of three boroughs of New York City, was divided into eight subdistricts and a member of the distribution organization was chairman of each subdistrict. These subdistrict chairmen formed the connection between their local Liberty Loan committees and the central organization. They acted as advisers to the local chairmen and transmitted to them the plans and material prepared at headquarters. The number of committees and subcommittees ran into the thousands. In every community an extensive volunteer organization was formed which carried the campaign direct to the individual in every branch of human activity.

To the army of Liberty Loan workers, men and women through whose energy and patriotism the millions of subscriptions were actually obtained, is due a large part of the credit for the complete success of the greatest financial operation of all time.

A publicity organization was established as a necessary part of the selling campaign. Its mission was to carry to every citizen in the district the message of the Liberty Loans and of America. This message was carried in a great variety of ways in the effort to disseminate the ideals for which America entered the War and to point out the financial needs of the government for winning the War. In the newspapers and magazines, on the billboards, houses, lamp-posts, vehicles, flagstuffs, and in the store and householder's window, the appeal appeared, showing the obligation of every American to participate in the work of winning the War. Frequent Liberty Loan meetings were held and many hundred men and women delivered the message in public addresses.

PARTIAL PAYMENTS

One of the most difficult problems from the standpoint of the physical handling of subscriptions in New York City grew out of the enormous number of applications for \$50 and \$100 bonds from persons who of necessity could purchase only on the partial payment plan.

The fact that there were but a relatively small number of banks located in the metropolitan area to handle the growing volume of these transactions threatened serious congestion in the banks. This situation, however, was successfully met by the formation of the Liberty Loan Association of Banks and Trust Companies of New York, which handled, through a coupon book system, approximately 2,400,000 separate partial payment accounts in connection with the Third, Fourth and Victory Liberty Loans. Under this plan, subscribers were allowed to make payments at any of about 1,400 payment stations designated throughout the metropolitan district as a convenience to subscribers and as a measure of relief to the banks.

The Liberty Loan Association, under the direction of the Federal Reserve Bank of New York, with a staff of approximately 450 clerks operated the system through which over 90,000,000 individual payments were received and over 2,000,000 separate bonds were delivered. As many as 17,500 people called at the office of the Liberty Loan Association at 19 West 44th Street, New York City, during a single day.

The importance of this undertaking is not to be measured merely by the number of bonds distributed. Countless individuals could not have purchased these securities on any other than the instalment plan, and much credit is due the banking institutions and the hundreds of other coöperating

agencies that made possible this great undertaking.

HANDLING THE LOANS

Up to the time of the First Liberty Loan, the Federal Reserve Banks had been operating with a comparatively small force of clerks, sufficient only to take care of the comparatively moderate volume of business which the banks had yet been called upon to do. It was not until after the First Liberty Loan campaign was actually under way that the officials in charge of the Federal Reserve Banks began to realize that their forces were totally inadequate to the magnitude of the task for the government which lay before them. The leading banks and investment houses were then appealed to for help and responded most effectively, willingly lending clerks, stenographers and even heads of departments and officers. In the Second District the force so loaned consisted of about 350 men who stayed with the Federal Reserve Bank until they were gradually replaced by a permanent staff just prior to the Second Liberty Loan.

It became necessary to develop special accounting systems, and control records in order properly and successfully to handle the issue, exchange and redemption of billions of dollars in government securities. Three separate departments were created to perform this work. One was organized to handle all operations in connection with the issue of bonds; another, to manage the sale and issue of certificates of indebtedness; and a third, to handle the collateral pledged by banks to secure government deposits. Something of the magnitude of the task performed by the government bond departments of the twelve Federal Reserve Banks may be seen from Table II which gives for the five Liberty Loans the record of subscriptions, allotments, exchanges and conversions.

TABLE II

SUBSCRIPTIONS, ALLOTMENTS, EXCHANGES AND CONVERSIONS FOR THE FIVE LIBERTY LOANS

Loan	Number of subscribers	Amount subscribed	Amount allotted	Number of pieces issued on allotments	Number of temporary bonds exchanged for permanent bonds. (Aug. 31, 1921)	Number of conversions (Aug. 31, 1921)
First.....	4,000,000	3,035,226,850	1,989,455,550	7,513,627	1,322,834	3,717,955
Second.....	9,400,000	4,617,532,300	3,807,865,000	14,938,073	5,610,948	12,317,448
Third.....	18,308,325	4,176,516,850	4,175,650,050	24,406,982	14,459,383	....
Fourth.....	22,777,680	6,993,073,250	6,964,581,250	33,024,445	17,405,606	....
Victory.....	11,803,895	5,249,908,300	4,497,818,750	17,498,172	....	636,960
Total.....	66,289,900	24,072,257,550	21,435,370,550	97,381,299	38,798,771	16,672,363

Other services of magnitude performed by the bond departments of the Federal Reserve Banks were exchanges of bonds of one denomination for bonds of another denomination, payment of coupons from all issues of Liberty Bonds and assistance rendered the Treasury Department in the registering of government bonds by receiving coupon bonds for registration and registered bonds for exchange into coupon bonds.

The current needs of the Treasury between the periods of bond issues and tax receipts were met by frequent issues of certificates of indebtedness of short maturities, which were also handled by the Federal Reserve Bank. These short credits proved to be a popular investment for our banking institutions and were periodically converted into long-time credits through the Liberty Loan bond drive and thus were distributed among individual investors. The issuance of certificates not only supplied a means of securing current funds but afforded a protection to the money market by distributing the receipts from loans and taxes over periods of time, thus avoiding periodic heavy withdrawals of funds from the

market. On October 31, 1921 there had been eighty-eight issues of certificates of indebtedness, both loan and tax, aggregating \$32,881,000,000 of which \$30,235,000,000 had matured and had been redeemed.

PAYMENT BY BOOK CREDIT

In order further to minimize possible disturbances in the money market the Federal Reserve Banks at the request of the Secretary of the Treasury extended to banks the privilege of paying for their subscriptions to Liberty Bonds and certificates of indebtedness by book credit, which simply means creating a deposit in favor of the government to the amount of the subscriptions. These deposits were withdrawn gradually from the banks on a pro rata basis as needed by the government. The Federal Reserve banks as fiscal agents were required not only to keep records of these deposits and withdrawals, but also to receive and hold collateral against them; at times these deposits amounted to about a billion dollars and the Federal Reserve Banks were required to handle many billions of dollars of collateral in connection therewith.

SUBCOMMITTEE ON MONEY

The desirability of having an orderly money market was generally recognized and on September 5, just prior to the offering of the Second Liberty Loan, a subcommittee of the Liberty Loan Committee of the Second District was appointed for the purpose of securing the most complete coöperation with the government in its financial program by all the financial interests of the city. This committee was composed of the Chairman of the Liberty Loan Committee, as chairman, and the presidents of eight of the largest financial institutions.

The policy of this subcommittee on money was to prevent the absorption of an excess amount of credit by the security market which might interfere with the orderly marketing of the government's loans, and at the same time to assure that sufficient funds would be available to maintain a reasonably healthy security market in order to facilitate the successful placing of Treasury issues. It was considered of great importance that reasonable and necessary control be exercised over the employment of credit in order to insure no interference with the financial operations of the government in conducting the war.

This committee enjoyed the fullest coöperation of the governors and members of the New York Stock Exchange who unselfishly placed in the hands of the subcommittee confidential information which would enable the committee to take such steps as were calculated to maintain an orderly money market.

MEETING THE DEMAND FOR CREDIT

The success of the Liberty Loans depended in large measure on the individual banks throughout the country. But the extent of their coöperation in turn depended upon the financial sup-

port which they felt they could secure from the Federal Reserve Banks. It soon became evident that the savings of the people in spite of the various thrift campaigns would not prove sufficient to meet the tremendous demands of the government and that a substantial portion of its borrowings would have to be met through bank credit. The banks supplied this credit both by subscribing to the loans themselves and by extending credit freely to their customers who borrowed in order to buy government obligations.

In fact, in order to insure the success of the government's financial measures, banks, life insurance companies, general business corporations and individuals were urged to subscribe heavily to the Liberty Loans without regard to their immediate ability to pay for them. Preferential discount rates were established by the Federal Reserve Banks in favor of paper secured by United States Government obligations and easy terms of payment promised by the individual bank to induce a sufficient flow of funds from the banks and the people to the government. With the coöperation of and by the support they gave to the individual banks of the country, the Federal Reserve Banks expanded the credit structure sufficiently to meet the needs of the great emergency.

The "borrow and buy" method of securing funds leads to inflation, to be sure, with all its consequent ills, but any method of financing a war, except solely out of the savings of the people, would have the same result. War financing always involves credit expansion unless private savings increase commensurate with government requirements. Try as we may, we cannot get away from this fact. We may safely say that the difference between the government's requirements for funds, as expressed in the securities

sold, and the volume paid for out of savings, represents a good part of the recent credit expansion. But it could hardly be expected that private savings would keep pace with the phenomenal demands of the government during the World War. Certainly no opportunity was neglected to impress upon the public the fact that they should save to the limit. While the Federal Reserve Banks were conducting a campaign urging increased borrowing as one means of selling Liberty Bonds, an equally intensive campaign urging upon the people the necessity for thrift and rigid economy was being conducted by the same banks under the direction of the Liberty Loan and War Savings committees, as well as by various other government agencies. The Food Administration, for instance, was active in this regard.

Furthermore, a campaign was carried on under the direction of the Capital Issues Committee for the purpose of conserving capital, labor, materials and transportation facilities for their most effective use in the prosecution of the War. There was a local capital issues committee in each district which reported to the central committee on all applications for permission to issue securities for the purpose of financing public or private corporate expenditure.

The Capital Issues Committee of the Second District, although in existence less than a year, considered formal applications for issues amounting to \$2,069,000,000, besides numberless cases where no formal applications were filed notwithstanding the fact that when the Committee was first appointed, the submitting of applications covering private issues was largely voluntary.

The record of the Federal Reserve Banks during the War, in my judgment, is one of splendid achievements. They not only organized and directed the sales campaigns and handled the details of every loan, but also by the support given to the individual banks of the country made possible their hearty coöperation and guaranteed the success of every loan. It is a cause for deep gratification that the banks and the people through efficient methods and organization were able to supply the government with such unprecedented sums to meet its needs in carrying on the War. That five great loans, aggregating more than \$21,000,000,000, were rapidly and successfully distributed with hardly a ripple in the financial markets, is of itself a great testimonial to the new banking system which has now been thoroughly tried and has successfully met the test.

The Assumption of Treasury Functions by the Federal Reserve Banks

By MURRAY S. WILDMAN
Stanford University

THE Independent Treasury as it functioned for three quarters of a century was an institution unique in the field of public finance. It grew out of the general demoralization of the banks which followed the panic of 1837

and the downfall of the Second Bank of the United States. When the Act of 1841 was passed, followed by the more adequate Act of 1846, the need for such legislation was real and urgent. On the theory that the establishment and

regulation of banks was a duty of the states, the care of Federal funds called for a Federal agency. When in 1863 that theory was abandoned, the justification for the subtreasuries passed away with it; but in twenty years these institutions had become rooted in our political system.

AN OUTGROWN AND OBJECTIONABLE SYSTEM

As long as a government agency is merely useless it may be left alone. The subtreasury buildings are substantial and impressive features of our cities; they housed several hundred officials and clerks, some of whom were devoted aids of the administration which they served, and it was not enough to show that the maintenance of this establishment involved a waste of money. Before the Independent Treasury could be abolished it must be shown as responsible for positive harm.

The important ground of objection to the subtreasuries was their evil influence in the money market. The harm that they did was real and substantial, although it was obscure. The great hoard of coin and bullion and legal tender notes, which was kept behind massive steel bars and approached through dismal passages between granite walls, while it impressed the tourist, would have brought dismay to the borrower of funds if he had been fully alive to his interest. It was not merely the impounding of cash that called for condemnation of the system but the recurrence of large payments as well. The alternate collection and disbursement of the revenues brought alternate contraction and expansion of the bank reserves and consequent changes in discount rates, which, in turn, disturbed the markets for staple products and securities.

The establishment of the national

banking system during the Civil War should have been followed promptly by the abandonment of the Independent Treasury, but at that particular period the banking business was not popular. The needed reform must wait for another time of great financial stress, and for a reorganization of the banking system on the principle of a single national cash reserve under Federal control.

THE NEW POLICY

The legislative acts which make definite provision for the new policy are two. Section 15 of the Federal Reserve Act of December 23, 1913, provided that "the moneys held in the general fund of the Treasury . . . may be deposited in Federal Reserve Banks, which banks . . . shall act as fiscal agents of the United States . . . and disbursements may be made by checks drawn against such deposits."

The other measure is found in the General Appropriation Act of May 29, 1920, which repealed the Act of 1846 in so far as it provided for subtreasuries, and required the Secretary of the Treasury to transfer the duties of the Assistant Treasurers of the United States to the Treasurer, the mints and assay offices and to the Federal Reserve Banks.

This Act of 1920 was belated. As intimated above, the officers and the employes of the subtreasuries owed their appointments to political influences. The original intention of the framers of the Federal Reserve Act was to have the subtreasuries taken over by the Reserve Banks. But, as the bill developed out of the economic and into the political stage in Congress, discussion arose and political force was asserted. "The moneys held in the general fund of the Treasury shall be deposited" in Section 13 became "may

be deposited" and the Secretary of the Treasury held the power of decision.

After the Reserve Banks were opened and had been officially designated as fiscal agents of the government, the Treasury made comparatively little use of them. Other bank depositaries were retained and treasury funds were placed for "crop-moving purposes" as in the past.

There was naturally adverse criticism. From official sources came pleas and explanations that the subtreasuries were convenient to the public, if not indispensable to the government, and the cities where they were located had their fears aroused that they were to be deprived of something of value to them. The criticism persisted, however. In the end the matter was referred, in March, 1917, to the Bureau of Efficiency for investigation and report to Congress.

The investigation was thorough and the report, made January 26, 1918, was most competent. The report concluded as follows:

The Bureau of Efficiency recommends the ultimate abolition of the whole subtreasury system. It believes not only that the government will save money by this change, but also that the public will in the end be better served. It will be appreciated that in making this recommendation the Bureau of Efficiency seeks only to serve the public interest. If, however, the subtreasuries are to be continued, the Bureau of Efficiency suggests the following as a minimum program:

The elimination of the three subtreasuries—Baltimore, Philadelphia and Cincinnati—which are of no essential value to the system;

The abolition of the post of assistant treasurer everywhere and the transfer of responsibility to the cashiers;

A reduction in the amount of coin-exchange business undertaken at the subtreasuries and by the cash room of the Treasury in Washington through the charging of a fee for receiving or paying out current coin;

The concentration of all the redemptions of paper currency in Washington;

Scarcely less than this can be done for the good of the Treasury and the people.

The effect of the legislation of 1920 was to make mandatory what had hitherto been permissive only. But the change of policy which these acts reveal had been slowly evolved out of a long and unhappy experience in the management of both public and private funds. The realization of the proper relation between Treasury and banks has been growing through a period of many years of nominal independence. It was made clearer by every financial crisis through which the country passed that real independence was impossible. Points of contact between Treasury and banks were established for greater convenience and economy in the handling of funds, and a relation of mutual dependence was tacitly recognized.

RELATION OF TREASURER TO BANKS 1865-1913

In order to save labor to both officials and the public, the subtreasury at New York was made a member of the clearing house on the resumption of specie payments, January 1, 1879. In the latter months of the Civil War and for several years thereafter the extensive collection of internal revenue as well as the necessities of postmasters led to the designation of certain national banks as United States depositaries. When a few years later depleted bank reserves coincided with surplus revenues in the Treasury, aggravating the stringency of the money market, the government adopted the policy of designating other national banks as special depositaries of public funds. Large sums were paid into these banks for the single purpose of putting idle cash to commercial use.

From the point of view of economical use of funds, bank depositors may be

divided into two groups: those who use banks for the safe-keeping of money, and those who use banks as agencies for the collection and payment of bills. The first class is typified by the savings depositor; the second, by the commercial depositor. The customary operations of the savings bank involve the receipt and payment of cash while the customary operations of the commercial bank involve the receipt and payment of credit instruments. In the latter case, cash is required only for a reserve, and this reserve is only occasionally brought into use. The result is that payments in and out of the commercial bank may vastly exceed the amount of cash employed. The public advantage in the use of this bank lies in the fact that a given amount of cash, when used as a reserve against deposits or notes, will accomplish much more than when used in payment directly.

In its use of national or state banks as public depositaries the Treasury never assumed the rôle of a commercial depositor in the sense here described. Funds were placed in the custody of the banks and in due course were ordered to be remitted to the Treasury. Ordinary disbursements were made by warrants drawn on the Treasurer and not by checks drawn on the banks. These so-called deposits were in reality loans to the banks in so far as the special depositaries were concerned. The banks held the funds for a definite period, paid interest on them and gave security for them. The term "deposit" was a misnomer and the practice of placing funds with the special depositaries could not be carried out without calling forth the charge of favoritism. The attitude of the public toward the banks selected to act as regular depositaries was somewhat different. These were chosen to serve the convenience of the government, but even here special collateral security

was exacted and the relation of bank and depositor was not a normal one. There were no true active checking accounts maintained by the Treasury.

SITUATION 1913-1916

When the Federal Reserve Act was passed in 1913 there were 850 regular depositaries and 685 special depositaries, together holding \$76,000,000, and all of the subtreasuries except the one at Philadelphia were members of the clearing houses of the cities in which they were located. To that extent the independence of the Treasury had been abandoned. From the establishment of the Federal Reserve Banks there was a rapid evolution of a new policy on the part of the Treasury. The twelve Reserve Banks were designated public depositaries some time after they were ready for business. In the twelve cities in which these banks were established all other government deposits were discontinued, except that in some cases Federal court funds and postmasters' funds remained where they had been previously kept.

But the use of the Federal Reserve Bank as a depositary involved an important change in the attitude of the Treasury in that these banks gave no collateral security for the funds held. Moreover, the funds were used by the Treasury as checking accounts; indeed, in some cases the Treasury received temporary advances of funds against an approaching issue of loan certificates, and so, for the first time since 1846, the Treasury became a bank depositor and borrower in the common acceptance of these terms. But this change of attitude in 1914 was cautious and incomplete. The major part of the public revenue and expenditure continued as before to pass through the subtreasuries. At the close of the fiscal year, June 30, 1916, the distribution of the general fund was as follows:

In Treasury offices	\$130,534,179.97
In Federal Reserve Banks	113,480,576.00
In national bank depositaries	62,833,774.43
In Philippine Treasury . .	3,968,122.73

The foregoing statement takes no account of the great trust funds held and administered by the treasury.

EFFECT OF THE WAR

The event which established the necessity of the new policy was our own entry into the World War and the great financial operations which ensued. Soon after war was declared it came to be the general understanding that our chief contribution to the joint enterprise would be in the field of finance and supply. To this end measures were adopted for the handling of funds of unprecedented magnitude with the least possible friction. Immediately on the passage of legislation providing for the first Liberty Loan, steps were taken to correlate the banks of the country with the Treasury for most effective team work. By the middle of November, 1917, the number of national banks designated as public depositaries was raised from 518 to 1,903. State banks and trust companies were pressed into service and 1,343 of these were named as public depositaries. In the Treasury circular of May 29 it was provided not only that banks so designated should hold on deposit to the credit of the government the funds received by them in the sale of bonds, but also that, when the funds should be required from the banks, the transfer should be made by a draft against the balance carried by the depositary bank in the Federal Reserve Bank in favor of the account of the Treasury in the same Federal Reserve Bank. That is to say, payments on government account should be made by use of the bank's credit and with no reduction of its stock of cash.

Not only were these rules applicable to receipts from the several Liberty Loans but also to receipts from income taxes and excess profits taxes, as well as from the sale of certificates of indebtedness which succeeded one another in rapid succession throughout the War and the following year. It was the custom of the Treasury to leave the credit as long as might be in the local depositary banks where it would serve the business community to the greatest possible degree, and require transfer to government account in the Reserve Bank only as it was actually needed, thence to be disbursed by government check. These transfers of credit were made ratably throughout the country—a certain percentage of the deposit on a specified date. The result of this policy was to make the depositary banks collection agencies of the government, while the Reserve Bank of each district became a disbursing agency to a degree unknown in the past. The effect of these operations on the distribution of the general fund at the end of the fiscal year 1917 is shown below:

In Treasury offices	\$107,662,952.07
In Federal Reserve Banks	300,671,632.42
In special depositaries . . .	783,922,959.51
In regular depositaries . . .	49,681,738.91
In Philippine Treasury . .	2,081,409.76

In order to appreciate the effect of the new policy upon the business of the Federal Reserve Banks it is only necessary to remember that the ordinary disbursements of the Treasury rose from a total of 682 millions in 1913 to 15,365 millions in 1919. The premises of the Reserve Banks became scenes of the greatest activity. New and larger quarters had to be taken, branch banks were established, and the employed personnel grew from 920 at the end of 1916 to 9,459 at the end of 1919. In the same three years the number of

state banks admitted to membership grew from 37 to 1,481, and the gold reserve from 738 millions to 2,063 millions.

CHANGES UNDER ACT OF 1920

From this showing it may properly be inferred that the expansion involved in the transfer of the duties of assistant treasurers under the mandatory act of 1920 had already taken place before the act was passed. By the terms of the law a period of thirteen months was allowed for making the change. The Secretary of the Treasury was permitted to assign the duties of the assistant treasurers to the treasurer, the mints and assay offices and to the Federal Reserve Banks, in such manner as might in his opinion best promote the public interest. It was provided further that the Secretary of the Treasury might assign to the Federal Reserve Banks such rooms, vaults and equipment as might be needed, and the employes of the various subtreasuries should have preference in application for positions in other departments of the government. However, most of them were taken over by the Reserve Banks.

In order that the transfer of business might go forward with the least disturbance of routine the change was made by degrees. The subtreasury at Boston was closed on October 25, 1920, that at Chicago, November 3; New York, December 6; San Francisco, December 20; New Orleans, January 5, 1921; St. Louis, January 8; Baltimore, January 14; Philadelphia, February 3, and Cincinnati, February 10.

In the case of six of these cities the work was taken over by the Reserve Banks located there, but in New Orleans, Baltimore and Cincinnati the functions of the subtreasury were transferred to branches of Reserve Banks located in those cities. But functions of the Independent Treas-

ury were not confined to banks and branches in the nine cities in which subtreasuries were to be found. By Treasury circulars issued August 30 and October 19, all the Federal Reserve Banks and their branches were definitely constituted fiscal agencies of the United States Treasury. The effect of this was to extend the facilities formerly available in only nine cities to thirty-five cities at the outset and to as many more as might be favored with a branch bank in the future.

One important duty of the subtreasuries had been to account for the special trust funds such as the gold coin held against United States notes, gold coin and bullion held against gold certificates, and the silver dollars held against silver certificates. The care of these funds was transferred to the Treasurer of the United States at Washington, to be assisted as may be desirable by the mints and assay offices.

TREASURY DUTIES OF RESERVE BANKS

The new duties now devolving upon the Reserve Banks are:

The receipt of gold coin and silver dollars for exchange; the receipt of United States notes, Treasury notes, gold and silver certificates, subsidiary and minor coin for redemption; the exchange of various forms and issues of money for others; the cancellation or cleaning of currency unfit for circulation; the receipt from depositary banks of internal revenue, customs, postal and other funds; the receipt of deposits from other than depositary banks for money payable to the government from many sources; the payment of United States interest coupons; the payment of checks and warrants drawn against the Treasurer, and the receipt of government funds for transfer to other points.

From what has been said it will be clear that the actual abandonment of the Independent Treasury did not greatly augment the work of the Reserve Banks. For example, on the date of transfer the bank at New York already held \$11,298,000 of government deposits, while the subtreasury in that city, whose normal business was far greater than that of any other, held only \$1,448,000. This sum was all in coin. The building was turned over to the use of the bank under a lease but the title remains in the government. In Minneapolis, where there was no subtreasury, the assumption of the new duties was not so easily effected. The vaults of the bank were not adequate to meet the new demands and outside vault space was rented. Moreover, the clerical staff was considerably enlarged. In San Francisco the entire staff employed in the subtreasury was taken over by the bank. The building was occupied under a lease and is used as a place of storage of coin,

currency and bonds, and for the housing of such employes as are required for the custody and exchange of these bonds.

SIGNIFICANCE OF THE NEW POLICY

The importance of the change therefore consists not in the magnitude of the new enterprise which the Reserve Banks have undertaken but in the significance of it. For all this coin and currency, insofar as it belongs to the general fund, now becomes a part of the banking reserve of the country. Large disbursements of government funds will never again stimulate speculation on the stock exchanges nor will the collection of a great surplus of revenue cause a chill in the markets of staple products. By adjustments through the Gold Settlement Fund maintained by the Federal Reserve Board at Washington the Reserve Banks will be able to make the largest payments, collections and transfers without affecting the magnitude of the reserves at any point.

The Establishment and Scope of Branches of Federal Reserve Banks

By E. R. FANCHER

Governor, Federal Reserve Bank of Cleveland

THE establishment and operation of the Federal Reserve Banks and branches is the direct result of intensive research and study on the part of economists, financiers and statesmen regarding the inadequacy of the banking system of the United States as developed under the national banking system, established in 1863, remodeled by enactment of Congress in 1864, and patched up from time to time by more than sixty legislative amendments. The national banking system as it formerly existed, was sup-

plemented by the state banks and trust companies created by state laws, all functioning independently or separately. The entire system passed through various so-called panics up to 1907, at which time the attention of the whole country was brought sharply to the inherent weaknesses of our banking and credit system, while the crisis of that year compelled definite action along remedial lines. The system had proved inadequate to cope with modern commercial needs. It failed to supply commerce and in-

dustry with adequate credit facilities in normal times, and in times of financial stress it broke down completely, spreading disaster and ruin throughout the land.

The Aldrich-Vreeland Currency Act, approved by the President May 30, 1908, in providing for emergency currency based upon certain classes of securities other than government bonds, authorized the uniting of ten or more national banks in any one city or community into a "National Currency Association." It may be stated that that law was the beginning of the regional idea, and of its later development into the thought of additional services and conveniences to areas, communities or centers, which has brought about establishment of branches of Federal Reserve Banks. The National Monetary Commission was also authorized by the Aldrich-Vreeland Act.

BRANCHES OF FIRST AND SECOND BANKS OF THE UNITED STATES

Alexander Hamilton's original plan for the First Bank of the United States, organized in Philadelphia in December, 1791, did not contemplate the establishment of branches; but early in 1792 branches were opened in New York, Boston, Baltimore and Charlestown, and later, additional ones were opened at Norfolk, Savannah, Washington and New Orleans, making in all, eight branches.

In stating the advantages derived from the bank by the government, Secretary of the Treasury Gallatin laid stress upon the safe-keeping and transmission of the public funds, the economical collection of the revenue, and the aid furnished to the government in the matter of loans. The punctuality of payments introduced by the banking system, and the facilities afforded by the bank to importers indebted for revenue bonds, were

among the causes which had enabled the government to collect with such facility and with so few losses, the great revenue derived from imports. The numerous state banks might afford considerable assistance to the government in its fiscal operations, but they could not effect the transmission of public funds with the same facility or to the same extent as the Bank of the United States through its several branches.

The Second United States Bank, chartered in 1816, commenced operations in January, 1817, and by October, 1817, nineteen branches in fourteen states had been designated, and, subsequently, eight other branches or agencies were established.

The establishment of branches was the most characteristic and the most essential feature of the plan of the First and Second Banks of the United States. Without them they would have been virtually useless to the government, unable to exercise an efficient control over the state banks, and incapable of furnishing accommodations in discounts and exchange throughout a country unprovided with a note circulation of uniform value, or with any extended currency.

The general control of the branches was almost wholly in the power of the central directorate through its authority to appoint the local directors and to create by-laws for the branches, the election of the president being the one important privilege left to the uncontrolled will of the branch directorates. It was, of course, essential to the safety of the bank, to the security of its operations and to the unity of its policy, that the control of the central board over the branch officials and directors should be real and effective.

Both the First and Second Banks of the United States became involved in

political strife without any intention of their own and in spite of their earnest efforts to avoid such entanglements.

These two central banks were very largely government instrumentalities; out of them grew the independent treasury system established in 1846, and from that time until the Civil War the government made its collections and disbursements entirely in specie and kept its funds in the Treasury and its branches, called subtreasuries. Important changes were made in this system during and after the war, bringing the Treasury into close relations again with the banking and credit system of the country.

THE INDEPENDENT TREASURY AND ITS BRANCHES

The national banking system, established in 1863, grew out of the financial difficulties of the Civil War. After the adoption of the independent treasury system in 1846, the government had no relation with the banks of the country, keeping its funds with the various subtreasuries established in several leading cities. When the war broke out the government was compelled to turn to the banks for help. Instead of meeting the war expenses by taxation, it resorted to loans, which could be obtained quickly only from the banks.

The policy of separating the fiscal activities of the government from banks and banking—which was adopted with the establishment of the independent treasury system—was discontinued when the national banking system came into existence, and thereafter the subtreasuries became largely depositaries of surplus coin, distributors of currency and coin, and redemption agencies.

Under the Aldrich-Vreeland Act there were formed no less than eighteen national currency associations, and in

the bill suggested by the National Monetary Commission, as a result of its investigations, provision was included for a central reserve association, for at least fifteen branches of the parent association and for further districts when necessity might arise. All through the studies of the National Monetary Commission and in the various important writings of financiers and economists, the necessity for adequate accommodations in industrial communities or centers, the interest of which might demand direct personal contact with properly accredited representatives of the parent institution, was recognized.

POPULAR OPPOSITION TO CENTRAL BANKS

Throughout the history of the country, it is apparent that the people have been opposed to placing in one single institution the financial power which a central bank might exercise. This was manifest in the failures of both the First Bank of the United States and the Second United States Bank to secure charter renewal; and the antagonism which was most apparent during the administrations of President Jackson continued and asserted itself in the preparation of the legislation that finally resulted in the enactment of the Federal Reserve Act, approved by the President, December 23, 1913.

Division of the United States into regions, as begun in the formation of the Currency Association, prevailed in the Act; and the establishment of not exceeding twelve independent Federal Reserve Banks with power in each of the banks to establish and operate branches was provided.

The original law, Section 3 of the Act, was as follows:

Each Federal Reserve Bank shall establish branch banks within the Federal

Reserve district in which it is located and may do so in the district of any Federal Reserve Bank which may have been suspended. Such branches shall be operated by a board of directors under rules and regulations approved by the Federal Reserve Board. Directors of branch banks shall possess the same qualifications as directors of the Federal Reserve Banks. Four of said directors shall be selected by the Reserve Bank and three by the Federal Reserve Board, and they shall hold office during the pleasure, respectively, of the parent bank and the Federal Reserve Board. The Reserve Bank shall designate one of the directors as manager.

The Organization Committee, provided in the Act, gave consideration to these provisions and reported at length regarding the development of branches. The final recommendations of the Committee, in part, were as follows:

It is recommended that in the event of the establishment of such branches they be assigned a proportionate capitalization based upon the capitalization and surplus of the member banks included within the territory assigned to the branch. This, however, should be only a tentative matter, and such assignment of resources should be merely to bridge over the period during which it is found from experience about what amount of paper will on the average be presented by the banks in each branch district. When sufficient experience has been had to determine this point the resources to be employed should be distributed among the branches in proportion to the quantity of paper presented on the average by the member bank in each such branch district.

It is recommended further that the parent bank of the district shall in every case retain for itself a substantial portion of the district as a territory from which paper shall be directly presented for rediscount. This would mean simply that the branch districts would be established whenever there was a special need for them in a particular part of a district which presented a clear cut, independent trading

area, whose territory was an economic unit and whose member banks naturally stood in close relationship to one another. The suggestion also amounts to a rejection of any plan for subdividing a district completely into branch areas while the District Reserve Bank itself exercised no distinct banking functions except those of oversight. It is believed that this latter plan would not be desirable, but that in every district there should be a strong independent Reserve Bank organization performing actual banking functions and directly rediscounting the paper of a considerable number of the member banks included within such district.

In responding to criticism of the Organization Committee in fixing Federal Reserve districts and designating Federal Reserve cities, the Honorable Carter Glass, then Chairman of the House Committee on Banking and Currency, stated early in 1914:

With my knowledge of facts and study of the situation, covering a period of sixteen months, I would not, had I the power, make more than a single change in the districts as defined by the Organization Committee, and that change I do not care to point out, as no good could be expected from any suggestion that now might be made. Referring again to the relative importance of the branch banks and the regional Reserve Banks, in the practical operation of the system, no business center will lose its identity nor have its business relations seriously interrupted. The banking operations and the commercial transactions of any given territory will be practically maintained as they exist today, for the reason that such territory will transact its business with the branch bank, if more convenient than with the regional reserve bank, so that there is no earthly reason why any large financial or commercial community should be in the least degree uneasy over the prospect of losing any business which it now commands.

EARLY DISADVANTAGES

In the original Federal Reserve Act, the mobilization in the Federal Reserve

Banks of reserves of member banks extended over a period of thirty-six months. In carrying these provisions of the law—as long as they existed—into effect, it became apparent that the cities in which Federal Reserve Banks were located had an advantage over cities of former equal standing, especially in regard to accounts of country banks, and the advantage of correspondent banks in Federal Reserve cities was further accentuated when the early steps in the par collection of checks were taken. At first, banks in the other cities endeavored to offset the advantage by maintenance of excess reserves in the Federal Reserve Banks and agreement for immediate charging against such reserves of their checks by the Federal Reserve Banks. This proved both burdensome and unsatisfactory.

In its Second Annual Report to Congress, for the year 1915, the Federal Reserve Board states:

The question of branches of Federal Reserve Banks has received careful attention during the past year. There has been intimation from several quarters that the establishment of a branch at a given point would be acceptable to the banks of that place. Only in one instance—that of New Orleans—did the Board receive a definite request from a Federal Reserve Bank to establish a branch. Believing that New Orleans and the adjacent territory could make advantageous use of this additional banking machinery, the Board authorized the establishment of a branch of the Federal Reserve Bank of Atlanta to be located in New Orleans, and this branch was opened for business on September 10, 1915. Operations at the New Orleans branch have proceeded satisfactorily, and the institution has been of considerable use to the local banks. The branch is already more than self-supporting.

Investigation and experience have seemed to show that, at least for some years to come, the organization of branches with completely equipped offices, vaults, and

the like, and with a full staff of salaried officials, will be too heavy an expense for most of the reserve banks, yet, that valuable service could be performed by local offices of the several banks in not a few places. The Board has, therefore, had under consideration the question whether establishing local agencies might not meet the requirements of the case better than the more fully organized branch office. Competent legal opinion is to the effect that the creation of such local offices is permissible under the terms of the law, and the Board believes that it may prove practicable to meet banking necessities in many sections of the country by this means.

The entrance of the United States into the Great War in April, 1917, forced upon the Federal Reserve Banks greatly increased responsibilities and duties. By reason of the government's financial requirements and the assistance rendered to member banks to enable them to meet obligations and give the wonderful support accorded by the banks to the nation's demands, the Federal Reserve Banks were enabled to show substantial earnings, and, on account of the favorable position thus attained, the early establishment of branches was possible.

The section of the Act relating to branches was amended in June, 1917, and in its Fourth Annual Report, the Federal Reserve Board made the following statements:

As originally enacted, this section provided that each Federal Reserve Bank "shall establish branch banks" to be "operated by a board of directors under rules and regulations approved by the Federal Reserve Board," and provided also that there be seven directors having the same qualifications as directors of Federal Reserve Banks. The section as now amended provides that the Federal Reserve Board may permit or require any Federal Reserve Bank to establish branches within its district, and that such branches, subject to such rules and regulations as the Federal

Reserve Board may prescribe, shall be operated under the supervision of a board of directors to consist of not more than seven or less than three directors, of whom a majority of one shall be appointed by the Federal Reserve Bank of the district and the remaining directors by the Federal Reserve Board.

During the year branches have been established at Omaha by the Federal Reserve Bank of Kansas City, at Louisville, by the Federal Reserve Bank of St. Louis, and at Portland, Seattle and Spokane, by the Federal Reserve Bank of San Francisco, and are now in operation. The Board has, in addition, authorized the establishment of branches at Pittsburgh and Cincinnati by the Federal Reserve Bank of Cleveland, at Detroit, by the Federal Reserve Bank of Chicago, at Baltimore, by the Federal Reserve Bank of Richmond, and at Denver by the Federal Reserve Bank of Kansas City. It is expected that all of these branches will begin business at an early date.

The policy of the Board in the establishment of these new branches has been to recognize the unity and paramount responsibility of the Federal Reserve Bank, while extending full facilities to the banks in the territory served by the branch. By avoiding duplications in bookkeeping, and by a consolidated control of accounts at the Federal Reserve Bank, it is expected that branches can be operated at a comparatively small expense.

In the organization of the branches in the various Federal Reserve districts, the parent banks have retained definite portions of their districts in which they exercise distinct banking functions for member banks, and have delegated to the branches like functions for member banks in territories or areas assigned to such branches.

BRANCHES ARE SUBSIDIARY

There are now in operation twenty-four branches of the twelve Federal Reserve Banks. These branches have all been located in the several districts in harmony with the underlying direc-

tion of the Act that they shall exist "with due regard to the convenience and customary course of business." The actual operation of all the branches in the final results is subsidiary to the parent banks and forms part of their functions. The figures of the branches are embraced in the reports and statements of their parent. Matters of policy and questions of operation are determined by the head offices in the respective districts.

By reason of remoteness from the head office, some of the branches maintain separate books and perform practically all of the functions of the parent bank in relations with member banks in their assigned zones or territories. In others, a method prevails by which all figures and accounts are maintained in the head office through private telegraphic connections with the branches and under a satisfactory system of communication and accounting.

FUNCTIONS OF BRANCH BANKS

The powers and functions exercised by the branches of the Federal Reserve Banks embrace:

- (1) Receiving deposits of member banks and the government;
- (2) Paying out currency and coin to banks;
- (3) Receiving from member banks applications for loans and discounts and tenders of bills eligible for purchase by Federal Reserve Banks, and examining all paper presented for technical defects, generally passing immediate credit for proceeds subject to final review by the head office;
- (4) Operating city and country collection departments for handling of bonds, coupons, notes, trade acceptances, sight, time, and documentary drafts, insurance and railroad vouchers, and certificates of deposits;
- (5) Operating a transit department

for handling checks and bank drafts and other cash items payable on demand;

(6) Clearing of checks and drafts and other clearable items payable through clearing houses in cities wherein branches are located;

(7) Making wire transfers to and from other Federal Reserve and branch cities for member banks in branch territory;

(8) Converting, exchanging and interchanging all issues of Liberty Loan bonds, Victory Liberty Loan notes and certificates of indebtedness;

(9) Redemption of United States securities, coupons, War Savings Certificates and stamps.

In the establishment of branches of the Federal Reserve Banks, efforts were made to give to those communities wherein the branches are located the fullest measure of Reserve Bank service demanded by banking and business conditions within limits of reasonable expenditure and avoiding unnecessary duplication of work. In each branch there is maintained an adequate currency supply to meet the needs of the community. The sub-treasuries were discontinued, prior to July 1, 1921, under an amendment by Congress to the organic law, and the functions and duties of those offices have been undertaken also by the Federal Reserve Banks and branches.

BRANCHES AID COLLECTIONS

The branches have been notably effective in the collection operations as developed in the Federal Reserve System. Checks and drafts and other collection items upon banks in a given branch or parent bank territory are sent directly to the branch or bank serving that territory by all other Federal Reserve Banks and branches, and arrangements have been perfected permitting the larger member banks

in the centers to send direct to the proper Federal Reserve Bank or branch all such items payable in its respectively allotted areas.

It is apparent that, in every practicable way, the banks in cities and areas wherein branches of Federal Reserve Banks are located are accorded all the facilities and services of the System in like manner as those in designated Federal Reserve cities. Capital stock adjustments and dividend payments naturally appertain to the head offices, and these functions are necessarily reserved, but otherwise the branches render available in their cities and assigned areas all Federal Reserve banking powers.

A notable instance of the use to which these facilities have extended is that, in one of the leading branches during the calendar year, 1920, over \$510,000,000 in currency was deposited, and approximately \$490,000,000 paid out and about 14,000,000 checks, aggregating nearly \$9,000,000,000, were handled by this one branch.

BRANCH BANKS GROWING RAPIDLY

In many of the locations the facilities demanded and accorded have already assumed such magnitude and importance as to require the services of large clerical staffs occupying considerable office space, and in not a few instances, already, the branches have been compelled to acquire separate buildings or to plan independent quarters in order to secure proper safeguards and efficient handling of the volume of work passing through their hands. Some of the Federal Reserve Banks now have under consideration necessary office location of branches; some branches now already established are being placed in their own buildings, the property of the parent banks. It is manifest that considerable expendi-

ture by the Federal Reserve Banks for office buildings and vaults for branches is necessary in order to conduct the work properly.

It is not improbable that in the future development and progress of the Federal Reserve System, there will arise the necessity for the location of

other branches to meet the demands or requirements of business communities or industrial centers. These situations will be met and provided for and any additional functions which may be properly assumed by the Federal Reserve Banks will likewise be allotted to the branches.

Curves of Expansion and Contraction, 1919-1921

By A. C. MILLER

Federal Reserve Board, Washington, D. C.

THE economic vicissitudes through which the country has passed during the past year have brought to everyone a vivid and memorable experience of the actualities of expansion and contraction and have made the study of the conditions which eventuate in these violent alternations of the curves of business and credit, a matter of profound practical importance.

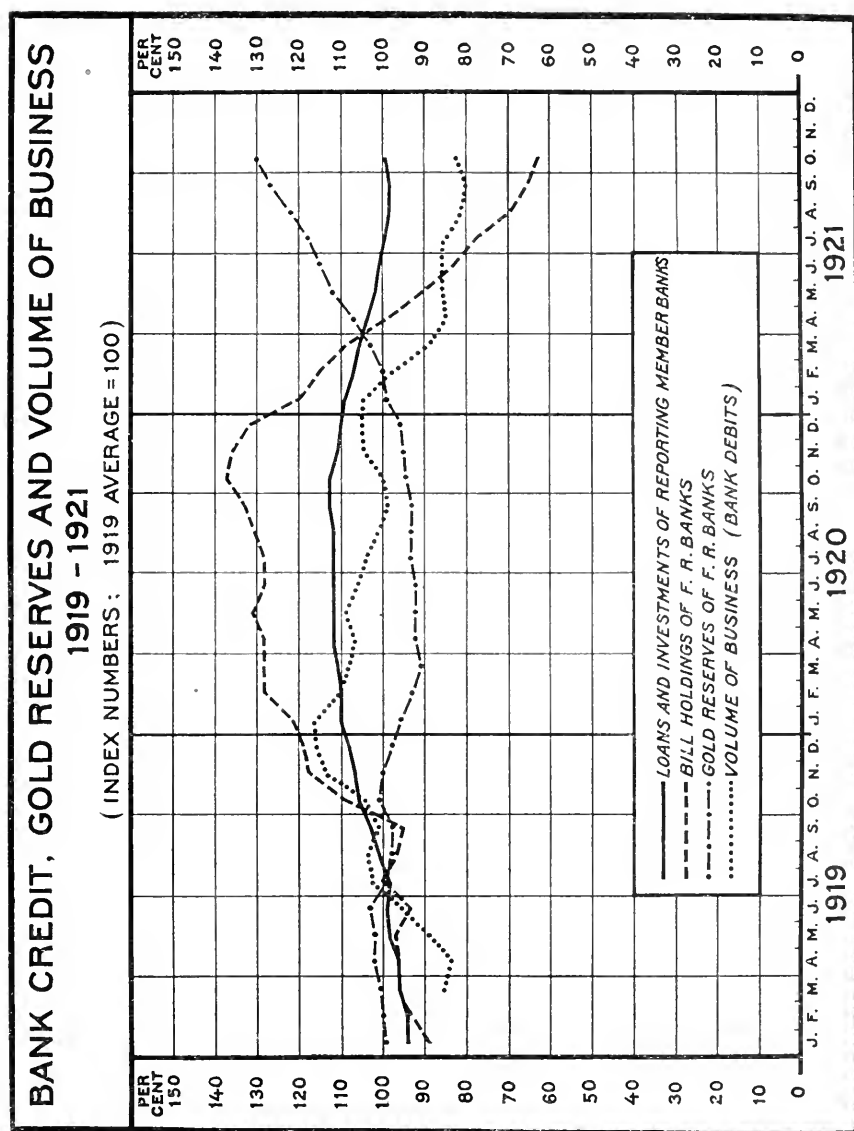
War, and its immediate aftermath of business inflations, made the credit expansion. After-war readjustment, with its inevitable liquidation, has made the credit contraction. So much is already clear from the outside point of view and is now admitted by most fair-minded people. But what is further revealed and how does the matter look when the operations of the banking system are viewed from the nearby, or Federal Reserve, point of view? For this whole recent experience raises some questions of great moment with regard to the functioning of the country's new credit mechanism.

It is not the purpose of this discussion to go into the economics of the expansion and contraction of 1919-1921. It is not at all concerned with questions of economic causation. No attempt will be made to determine whether expansion or contraction of

credit caused expansion or contraction of business and the rise and fall of prices, or whether the movement of credit was determined by the movements of business and prices. The correlation of the business and financial factors involved in the economic developments of the past three years presents too complex a problem to be undertaken within the limits of this paper. For the assistance of any who are ambitious to penetrate the economic mysteries of recent expansion and contraction, there is, nevertheless, appended to this article a collection of data covering most of the determinable factors involved in the problem. In order to make the fluctuations in the different items comparable, they are expressed in the form of index numbers based on the 1919 average. A second table shows the absolute figures upon which the index numbers of banking are based.

MEASUREMENT OF EXPANSION AND CONTRACTION

The object of the present discussion is to ascertain what light recent experience throws on the question as to whether the Reserve System possesses a sensitive and accurate indicator of changes in the credit and business



situation—or, let us say, of expansion and contraction.

The above chart brings out the essential developments for this purpose. The two curves of credit on the chart show, respectively, changes in the bill holdings of the Federal Reserve Banks and changes in the loans and investments of the reporting member

banks.¹ The third curve shows changes in the gold holdings of the Federal Reserve Banks, and the fourth,

¹ Consisting of some 800 of the largest banks of the country which report weekly to the Federal Reserve Board. These banks represent about 40 per cent of the banking resources of the country, and changes in their condition may be taken as typical of changes in the banking situation in general.

changes in the volume of the country's business.²

The volume of business in general depends on four factors, or, in mathematical language, is a function of four variables: (1) physical volume of production; (2) price level; (3) activity of trade (rapidity of turnover); and (4) speculative and other transactions in securities, exchange, etc. A change in any one of these factors affects the total volume of business, and this, in turn, affects the total volume of credit required. In any exhaustive analysis of the business or economic situation to ascertain what factors are affecting the demand for credit facilities, or, let us say, the expansion or contraction of credit, careful attention must always, of course, be given to variations in any of the elements affecting the volume of business.

CHANGES IN THE BUSINESS SITUATION, 1919-1920

Beginning about midyear, 1919, and extending to the end of the year, there was a pronounced expansion of business accompanied by great speculative activity involving commodities as well as securities. Increased activity of business (rapidity of turnover) and rise of prices were the important factors in this development. The index of the physical volume of production (for manufactures) shows no noteworthy change during this interval.

Economic reaction set in early in 1920, and continued throughout the

² As measured by debits to individual accounts in banks in about 150 leading clearing-house centers. In order to eliminate short-time fluctuations due to the difference in the number of business days in a month, to mid-month and end of the month payments, and to Treasury operations in connection with the quarterly installment of income taxes, the volume of business curve on the chart has been smoothed by means of a moving average which shows for each month the average volume of business for the month and the two preceding months.

year. Business recession was much in evidence and gained in momentum after mid-summer, 1920. In the first quarter of 1921 the reaction reached the stage of acute liquidation. Thereafter business pursued a steadier course. This period of reaction and liquidation was marked by diminished physical volume of production (for manufactures) after mid-summer, 1920, and by the drop of wholesale prices. The index for manufactures declined from 102.3 in July to 77.9 in December, 1920, and to 68.5 in July, 1921. The price index declined from 123.6 in July to 89.2 in December, 1920, and 69.8 in July, 1921. These changes in the business situation, 1919-1921—that is, the rise and the fall in the volume of business transactions—are clearly reflected in the curve of business. Its trends are unmistakable.

How well are these changes in the business situation—in brief, the expansion and contraction of the volume of business—reflected in the curves of credit, first, that of the member banks, and second, that of the Federal Reserve Banks?

MEMBER BANK CREDIT CURVE OF EXPANSION AND CONTRACTION

The member bank credit curve reflects pretty faithfully the business expansion which went on in the second half of the year 1919, and again, the liquidation which was in process in the early part of the year 1921. It will be noticed that the liquidation of the loan account of the reporting member banks in the first six months of the year 1921 approximately cancels the expansion of the loan account of these banks in the second six months of the year 1919. Through the year 1920, however, it will be noticed that the curve of credit of the member banks shows a different trend from the curve of business. The business recession which was in process

in 1920 is not at all reflected in the member bank curve of credit. There was no contraction of credit until the last quarter of the year. On the contrary, the banks were expanding their accommodation throughout the year and until after the crop-moving season was over. Agriculture was in distress, while business was in the midst of the crisis of readjustment and needed assistance in effecting the transition from the period of expansion through the period of liquidation. That assistance was being extended by the banks, as both of the curves of credit clearly indicate, and thus was liquidation of business moderated and kept orderly by comparison with what it would have been, had it not been for the steadying and easing influence of our new credit machinery.

THE RESERVE BANK CURVE OF CREDIT

Turning to the Reserve Bank curve of credit, it appears that the curve of credit of the Federal Reserve Banks parallels the curve of business more closely than does the curve of credit of the member banks, both in the period of rapid expansion in 1919 and in the period of acute liquidation in 1921. It will be noticed on the chart that the Reserve Bank curve of credit in the period under review twice cuts through the member bank curve of credit—once in October, 1919, on the upward swing of business, and again in April, 1921, on the downward swing of business. By comparison with the member bank curve, the ascent of the Reserve Bank curve was more pronounced on the rise, as was also its descent on the fall. On the other hand, throughout nearly the whole of 1920, when the business curve was showing a decided downward trend (until the last quarter, when a slight rise is shown due to seasonal influences) the Reserve Bank curve of credit showed an opposite, or

upward, trend. Both curves of credit in the critical year 1920, therefore, followed a different trend from the curve of business, but it is noteworthy that the difference is much more pronounced in the Reserve Banks' curve than in the member banks' curve.

THE GOLD INFLUX AND RESERVE BANK CREDIT CURVE

There still remains to be considered the curve of gold reserves. The sharp and prolonged drop in the Reserve Bank curve of credit through the year 1921 and the liquidation which it reflects cannot be understood without reference to the great influx of gold into the country and into the Federal Reserve Banks, which has been in process during the past twelve months. Reference to the chart brings out the opposite movements in these two significant and related curves. Reference to the index numbers shows that the index of the Federal Reserve System's gold holdings rose from 94 in October, 1920, to 130 in October, 1921, while the index of bill holdings declined from 137 in October, 1920, to 63 in October, 1921. Over 45 per cent of the liquidation of the loan account of the Federal Reserve System, it appears, may be attributed to the increase of its gold holdings. The influence to be attributed to the gold factor in Federal Reserve Bank liquidation is still greater in the case of the Federal Reserve Bank of New York, which has been the chief recipient of the gold flowing from Europe to our shores. The index of bill holdings for that bank fell from 126 in October, 1920, to 37 in October, 1921. Its gold index for the same period shows a rise from 74 to 156. The gold factor is thus seen to account for over 73 per cent of the liquidation experienced by the loan account of the Federal Reserve Bank of New York.

The great stream of gold which has

poured into the United States from Europe during the past year has come in liquidation of foreign indebtedness to us, and has been turned over by member banks to the Federal Reserve Banks in liquidation of their own indebtedness. The pronounced and continuous downward trend of the Reserve Bank loan curve during the past year is therefore seen to be due largely to foreign liquidation. The course of business shows considerable steadiness after the first quarter of 1921, and the member bank curve of credit, after the second quarter; but the Reserve Bank curve of credit continues its downward course in 1921 without abatement in quick and close response to the continuously upward course of the curve of gold reserves. As an indicator of the degree and rapidity of domestic liquidation, the Reserve Bank curve of credit is misleading, owing to the disturbing influence of the gold factor.

THE RESERVE BANK CURVE OF CREDIT THE MORE SENSITIVE INDICATOR OF CREDIT CHANGE

Comparing the two curves of credit with one another, it is clear that while both curves are influenced by the same changes in the business situation, their response is not the same. A glance at the chart brings out the fact that the Reserve Bank curve moves very much more readily and markedly than the member bank curve. The member bank curve appears flat by comparison with the Reserve Bank curve, and gives a less lively impression of the business and credit developments and changes which were in process. What is the explanation of the difference, and which of the two curves is the better index of expansion and contraction?

The relative flatness of the member bank credit curve during the year 1920 as compared with the Reserve Bank curve is due to several circumstances,

some transitory in character. It will be recalled that the loan and investment account of the banks of the country was greatly swollen during the War by heavy investments in Liberty bonds and Certificates of Indebtedness, and by accommodation granted subscribers to government war loan issues. After the War, the process was reversed. There has been constant liquidation of bank holdings of government securities and of loans collateralized by such securities. Reporting member banks' holdings of government securities dropped from 3,083 millions in May, 1919, to 1,938 millions in January, 1920, and 1,318 millions in January, 1921. Figures of holdings of paper secured by government securities are not available until December, 1919, when they amounted to 1,337 millions. From this point they declined to 899 millions in December, 1920, and 577 millions in October, 1921. The liquidation in the loan and investment account of the member banks from these sources has therefore been very considerable. But it does not appear to be reflected in the movement of the member bank curve of credit in 1920. That curve was ascending in spite of liquidation from these sources. But had it not been for this liquidation, it is altogether reasonable to assume that it would have ascended still more. The credit thus released by liquidation of war loan securities and paper was apparently being used to expand the commercial and speculative loan accounts of the banks.³

³ Something similar occurred in the early autumn of 1919, when it will be noticed the member bank curve was rising, while the Reserve curve was declining, the banking expansion then in process being able to proceed without increased borrowings from Federal Reserve Banks. This is explained by the fact that the floating debt of the government was reduced at this time by almost 500 millions of dollars, the banks using the funds thus made available to them for the expansion of their commercial loans.

When we come to the period of liquidation in the autumn of 1920 and the following winter, there appeared an influence of an opposite character to that just described—namely, the so-called “frozen credit.” By “frozen credit” is meant credit that has continued its existence beyond the time when the transactions which gave rise to the credit should normally have liquidated themselves. It is made up of credits which have not been liquidated because the transactions underlying the credits have not been able to run their course and liquidate themselves. It is well known that large volumes of goods produced last year have been carried by the producers for lack of satisfactory markets. Prices were falling, markets were collapsing, and there was congestion of goods at points of primary production and distribution. The owners of these goods had to be “carried.” There is no means of approximating the amount of these frozen credits, but there is reason to believe that they constitute a very substantial fraction of the total loans and discounts carried by the commercial banks of the country.

The member bank loan curve shows resistance to the forces of liquidation. It was this retarded or “orderly” liquidation which kept the curve from descending as swiftly as it otherwise would have if it had been influenced merely by the volume of current business transactions. Moreover, the liquidating power of a dollar paid in by a member bank to its Reserve Bank in a period of liquidation appears, on the basis of the past two years, to be very much less than the credit-supporting power of a dollar loaned by a Federal Reserve Bank to a member bank in a period of active expansion.⁴ And fur-

thermore, the Federal Reserve Bank loan curve, as has already been pointed out, represents in a peculiar degree the liquidating effect on the Federal Reserve loan account of the huge influx of gold which has been continuous during the past twelve months. Besides these transitory influences which have helped to give the member bank loan curve a relatively flat character, there is the additional important and regular influence exercised by the far greater volume of member bank loans compared with Reserve Bank loans. Owing to the fact that the base figure is much larger for member banks than for Reserve Banks, the same change in absolute amounts will result in a much larger percentage change and, consequently, in a much steeper movement in a Reserve Bank curve than in a member bank curve. But this arithmetical fact does not fully explain the discrepancy. There is a further reason of an economic character to be noted in a study of the curves of expansion and contraction.

The great bulk of the loans of the member banks at any time represents loans incident to the ordinary volume and requirements of business, and

29, 1921) the increase in the loans of the member banks was 6.7 times as great as the increase in the discounts of the Federal Reserve Banks, while during the following year the decrease in the loans was only 2.3 times as large as the decrease in Federal Reserve Bank discounts. For the reporting member banks, for which data on more significant dates are available (July 25, 1919, before the speculative expansion began, October 15, 1920, when the peak was reached, and November 2, 1921, the latest date for which data are available) their investment and loan account increased 3.2 times as fast during the period of expansion as their borrowings from the Federal Reserve Banks, while during the period of liquidation the reduction in the investment and loan account of the reporting member banks is 1.6 times as large as the corresponding reduction in their borrowings from Federal Reserve Banks.

⁴ During the period of expansion between 1919 and 1920 (dates for which information is available being June 27, 1919, June 25, 1920, and June

exercises, even in times of marked changes in the business situation, a steadying influence on the member bank credit curve. The situation of the Reserve Banks is different. Their loan account does not reflect the normal volume of credit in use. Under normal conditions, their operations are not large. It is not the absolute amount of credit in use, but the ebb and flow of credit, which affects the loan account of the Federal Reserve Bank. The Federal Reserve Bank has little part in the ordinary credit business of the country. It does not deal with business borrowers directly. The relations of the business man are with his member bank, the member bank in turn dealing with the Reserve Bank as occasion may necessitate. The Federal Reserve loan is not the first line of credit, but the second line of credit. The expansion and contraction of the Reserve Bank loan account are twice removed from the expansion and contraction of the volume of business as reflected in commercial bank loans.

The Federal Reserve is called into activity when the supply of ordinary credit facilities is inadequate. It supplements the resources of its members. It is, so to speak, the increments and decrements in the country's credit requirements that are reflected in the upward and downward movement of the Federal Reserve loan account. It is when business is speeding up beyond their normal credit capacity that the commercial banks must resort to the Federal Reserve Banks for accommodation. When business is receding and liquidating in a period of economic reaction, slackening of credit require-

ments will result in a marked reduction of borrowings from Federal Reserve Banks. The Reserve Bank curve consequently reflects movement, change—the *more or less* of credit required—and not the actual total volume of credit in use by business. On a relative basis the Reserve Bank curve has a tendency to magnify what is in process in times either of rapid expansion or of acute liquidation; in other words, to give an exaggerated or heightened impression of these movements.

A GUIDE TO CREDIT POLICY

Therein consists its importance as an administrative guide. While it may be faulty as a gauge of the degree of credit expansion or contraction, its very sensitiveness gives it a peculiar value as a quick indicator of what changes in the business and credit situation are in process or even impending. For while the Reserve Bank curve, during the period under review, has been over sensitive and gives an exaggerated impression of credit developments, the member bank curve, for reasons already discussed and primarily because, at any moment, it is more influenced by what has taken place than by what is taking place, tends to give an inadequate impression of changes which are in process, at least so far as they affect the credit situation. In times of rapid expansion or contraction, it is not the total volume of outstanding bank loans which is significant, but additions to that volume, or reductions in it. From this point of view, the Reserve Bank curve is a truer index of business and credit development than the member bank curve, and a better guide to credit policy.

INDEX NUMBERS OF BANKING AND BUSINESS DEVELOPMENTS: 1919-1921
(Monthly averages for 1919 = 100)

	ALL FEDERAL RESERVE BANKS			F. R. BANK OF NEW YORK			REPORTING MEMBER BANKS			Volume of business ^b	Wholesale price index ^c	Volume of manufacture ^d
	Bill holdings	Gold reserves	F. R. note circulation	Bill holdings	Gold reserves	F. R. note circulation	Loans and investments ^a	Net demand deposits	Accommoda- tion at F. R. Banks			
1919												
January..	89	99	97	94	95	92	94	95	88	....	95.8	101.6
February..	93	100	95	100	92	90	94	94	94	....	92.9	86.7
March....	96	101	96	97	105	96	96	95	98	85.6	94.8	92.6
April	96	102	98	93	115	100	96	96	97	83.3	95.8	93.7
May	97	102	97	98	112	101	98	99	101	88.7	97.6	95.7
June	93	103	96	89	119	100	99	98	92	95.1	97.6	95.9
July.....	100	99	97	106	98	102	98	100	98	102.5	103.3	101.9
August ..	97	98	98	98	94	102	101	102	94	103.4	106.6	107.2
September	95	98	101	89	94	102	103	104	93	101.2	103.8	103.8
October..	109	101	105	109	91	103	106	105	112	104.6	105.2	104.4
November	118	100	108	114	94	104	107	107	119	113.5	108.5	102.2
December	119	98	113	114	91	108	108	106	117	116.4	112.3	102.1
1920												
January..	122	96	111	119	87	105	110	109	121	116.7	117.0	115.9
February..	128	93	114	126	83	110	110	108	136	111.0	117.5	104.6
March....	128	91	117	123	77	113	111	109	138	108.4	119.3	118.0
April	128	92	118	117	86	114	112	109	139	107.1	125.0	108.8
May	131	92	119	122	86	115	112	109	140	108.6	128.3	111.8
June.....	128	92	119	120	84	116	112	109	133	106.9	126.9	109.6
July.....	128	93	121	122	81	117	112	108	135	103.6	123.6	102.3
August ..	131	93	122	125	75	116	112	107	139	101.2	117.9	104.9
September	133	93	126	118	76	117	113	107	142	98.4	114.2	101.4
October..	137	94	128	126	74	119	113	106	150	100.3	106.1	101.2
November	136	95	128	125	74	119	111	104	148	104.3	97.6	88.9
December	132	96	128	124	71	118	110	102	143	104.6	89.2	77.9
1921												
January..	120	99	121	116	65	109	109	102	131	104.7	83.5	78.3
February..	115	100	117	114	64	108	107	100	126	98.2	78.8	75.0
March....	109	103	115	102	78	108	106	98	121	90.1	76.4	80.6
April	100	107	110	84	101	104	104	96	108	85.0	72.6	75.8
May	91	112	107	75	106	98	102	96	96	85.9	71.2	79.3
June	83	115	103	59	128	94	101	96	85	85.9	69.8	75.9
July.....	78	118	100	53	132	89	99	95	79	85.2	69.8	68.5
August ..	70	122	96	49	134	87	98	94	67	81.6	71.7	....
September	66	127	95	39	150	87	98	94	61	80.2	71.7	....
October..	63	130	94	37	156	86	99	95	57	82.3	....	....

^a Including rediscounts with Federal Reserve banks.

^b As measured by debits to individual accounts, three-months' moving averages.

^c U. S. Bureau of Labor Statistics.

^d Harvard Committee on Economic Research.

BANKING DATA: 1919-1921

(Monthly averages: amounts in millions of dollars)

	ALL FEDERAL RESERVE BANKS			F. R. BANK OF NEW YORK			REPORTING MEMBER BANKS			<i>Ratio of F. R. accommoda- tion to total loans and investments (per cent)</i>
	<i>Bill holdings</i>	<i>Gold reserves</i>	<i>F. R. note circulation</i>	<i>Bill holdings</i>	<i>Gold reserves</i>	<i>F. R. note circulation</i>	<i>Loans and investments*</i>	<i>Net demand deposits</i>	<i>Accommoda- tion at F. R. Banks</i>	
1919										
January	1,992	2,100	2,534	757	611	676	14,178	10,048	1,306	9
February	2,084	2,119	2,465	804	593	665	14,257	9,908	1,400	10
March	2,147	2,138	2,506	780	677	709	14,578	10,115	1,449	10
April	2,138	2,156	2,547	751	740	738	14,559	10,135	1,443	10
May	2,168	2,177	2,532	795	721	743	14,886	10,439	1,497	10
June	2,089	2,177	2,500	721	765	736	14,969	10,393	1,361	9
July	2,241	2,112	2,527	852	632	749	14,813	10,604	1,454	10
August	2,174	2,079	2,543	789	602	748	15,204	10,800	1,395	9
September	2,136	2,086	2,627	718	605	753	15,577	10,984	1,383	9
October	2,436	2,136	2,742	883	587	756	15,961	11,140	1,660	10
November	2,633	2,116	2,821	923	607	761	16,143	11,330	1,765	11
December	2,661	2,089	2,959	921	587	796	16,337	11,244	1,739	11
1920										
January	2,720	2,037	2,892	963	557	775	16,670	11,576	1,803	11
February	2,867	1,979	2,962	1,018	535	810	16,630	11,482	2,019	12
March	2,856	1,936	3,041	997	498	834	16,813	11,600	2,053	12
April	2,853	1,950	3,075	949	552	838	16,935	11,546	2,069	12
May	2,934	1,943	3,092	981	555	848	16,941	11,506	2,085	12
June	2,857	1,964	3,115	968	538	857	16,926	11,499	1,981	12
July	2,875	1,975	3,145	985	518	860	16,876	11,466	2,005	12
August	2,933	1,974	3,172	1,006	483	854	16,862	11,299	2,072	12
September	2,973	1,975	3,277	956	490	862	17,012	11,286	2,117	12
October	3,071	1,998	3,338	1,014	477	872	17,147	11,266	2,222	13
November	3,033	2,011	3,329	1,013	474	876	16,827	11,027	2,200	13
December	2,952	2,043	3,344	1,005	459	871	16,692	10,823	2,132	13
1921										
January	2,692	2,092	3,159	938	415	805	16,402	10,816	1,947	12
February	2,570	2,127	3,054	922	413	793	16,131	10,583	1,878	12
March	2,444	2,192	2,986	826	500	791	16,021	10,404	1,792	11
April	2,241	2,283	2,871	676	650	764	15,733	10,201	1,601	10
May	2,039	2,370	2,784	608	682	723	15,466	10,194	1,421	9
June	1,865	2,439	2,682	479	822	690	15,319	10,182	1,267	8
July	1,735	2,503	2,594	432	846	657	15,020	10,037	1,167	8
August	1,566	2,598	2,506	396	862	638	14,876	9,921	996	7
September	1,471	2,694	2,485	315	966	638	14,857	9,953	906	6
October	1,415	2,755	2,452	298	1,001	634	14,897	10,107	854	6

* Including rediscounts with Federal Reserve banks.

Expansion and Contraction Under the Federal Reserve System

By ERNEST MINOR PATTERSON
University of Pennsylvania

MUCH confusion of thought on the subject of expansion and contraction is due to our failure to distinguish clearly between three different problems. An economic system, which operates on a money and credit basis, and which maintains business relations with the systems of other countries, cannot well escape these difficulties. Each of the three facts involved is at times referred to as "depreciation."

THE THREE KINDS OF "DEPRECIATION"

One of them is the relation of a given financial system, such as that of the United States, to that of other countries as reflected in foreign exchange quotations. The British pound is worth at mint par \$4.8665, the German mark, 23.8 cents, the French franc, 19.3 cents and so on. When, as at present, these moneys are bought and sold in our markets at about \$3.80, one-third of a cent and 7.25 cents, respectively, it is customary to say that the moneys of those countries are depreciated. During the late War the moneys of the belligerent countries were thus depreciated in the United States, while at the same time our money was depreciated in certain neutral countries.

The causes of such a condition we need not here explain, but one point needs emphasis. In every case where such depreciation occurs there is merely an increase in the value of the first money in terms of the second and a decrease in the value of the second in terms of the first. In terms of the American dollar the pound sterling is now lower than usual, and

in terms of the pound sterling our dollar is higher than usual. For a period of time several years ago the American dollar was lower than usual in terms of the money of Sweden, and Sweden's money was higher than usual in terms of our dollar. Foreign exchange quotations are for the most part merely a barometer or index, an effect and not a cause, but what they state is a change in the relative position of the moneys of two countries. The appreciation of one involves the depreciation of the other, and vice versa.

A second kind of depreciation is found when one form of money, say the standard money gold, changes in its relationship to some other form of money in the same country. Such a change occurred in the United States during the Civil War, when the "greenbacks" or United States notes were issued in very large quantities and were acceptable at less than their face value in exchange for gold. At one time a dollar of gold would purchase as much as \$1.85 in greenbacks. The greenbacks had depreciated in terms of gold, and gold had appreciated in terms of greenbacks. Again it is a question of the relationship between the two.

A third type of depreciation is to be observed when the general price level changes. If prices in general rise to a higher level than that of the past it may be said that the value of commodities in the country has appreciated in terms of money and that the value of the money has depreciated in terms of the commodities. Similarly, if the general price level falls, there is an appreciation of the value

of the money in terms of commodities and a depreciation of the value of the commodities in terms of money.

These three forms of depreciation are well understood by most persons who are at all acquainted with financial questions. Nevertheless, they are closely interrelated, and when a particular problem is up for consideration these interrelationships may be overlooked and confusion of thought result.

"EXPANSION" AND "INFLATION"

One other definition is necessary. "Expansion" is a word that is used very loosely. Sometimes, though not always, it is employed as a synonym for "inflation." With these two words, or rather in contrast to them, are "contraction" and "deflation."

Any and every increase in the volume of circulating medium in the United States is not inflation. As population grows and as business activity increases a larger amount of circulating medium is needed if the price level is not to decline. If its amount should remain the same the price level would fall and we would suffer all of the accompanying hardships. As the volume of trade increases it is better to have an increase in the volume of circulating medium. If this occurs and at the same rate as the growth in trade there are no harmful effects, and it would not be correct to say there had been inflation. A mere increase in the volume of money or credit is not inflation, for the increase must be viewed in its relation to the demand for it. Similarly, a decrease is not to be referred to as deflation if it merely corresponds to a decline in the volume of business, *i.e.*, to a reduction in demand. The price level is not affected and no hardship results.

Changes in the volume of money and

credit that only adjust their supply to the demand for them are better referred to as a contraction and an expansion that merely evidence the elasticity of a monetary and banking system. For years the Canadian bank note issues have increased in the fall of each year to meet the demand for crop-moving, and have later contracted when that demand ceased. Such changes ought not to be referred to as inflation and deflation, but as a most desirable expansion and contraction.

It is true that expansion of this kind might become dangerous, but it is not probable. The volume of note issues or of deposit liabilities in relation to reserves might become too large as compared with the reserve held for redemption purposes. Public knowledge of this situation might result in a run on the banks and the failure of some of them, even though the expansion had occurred merely to meet the needs of a rapidly growing trade. However, this kind of expansion is not apt to take place. There are both seasonal and cyclical fluctuations in the demand for money and credit, but in actual experience they are not likely to result in a condition of the sort just described. While an expansion does take place, ordinary trade demands are not apt to lower seriously the percentage of reserves held.

There are two periods of activity for analysis in this article. One extends from the formation of the Federal Reserve System in the autumn of 1914 to the spring of 1920. The second continues from that time to the present.

That in the first of these two periods there occurred an increase in the volume of circulating medium does not need to be argued here. Nor need we stop to demonstrate in detail that this increase was more rapid than the

growth in the volume of trade. Professor Kemmerer, in his volume *High Prices and Deflation*,¹ has shown that from 1913 to 1918 there was an increase of 13 per cent in the country's physical volume of business, while in 1919 it actually declined from the 1918 level being only 9.6 per cent greater than in 1913.

During this same period of time there was an increase in wholesale prices as reflected in the United States Bureau of Labor index number of 112 per cent over the 1913 level. Also, the exchange market showed a depreciation of the pound sterling, the mark, the franc, the lira and other foreign currencies in terms of our dollar. We have already pointed out that there are three kinds of depreciation, and the period in question may be examined with a view to determining whether the Federal Reserve System and its management were responsible for such depreciation as occurred.

First, let us notice the increase in the volume of the circulating medium. From November 1, 1913, to November 1, 1918, the amount of money in the United States increased from \$3,755,994,000 to \$7,590,173,000. Of this increase \$1,173,883,000 was in gold (and gold certificates), and \$2,660,296,000 in other forms of money. The increase in our stock of gold had a definite connection with affairs abroad, and will be considered a little later. But there was an increase in the issue of Federal Reserve notes, from nothing to \$2,705,737,000, and in the Federal Reserve Bank notes from nothing to \$71,647,260. Also during approximately the same period the deposit liabilities of the national banks increased from \$6,051,689,000 to \$11,013,330,000. There was without doubt an expansion in our circulating medium more rapid than in the demand for it.

¹ See pages 3-13.

What was the occasion for this and where does responsibility rest?

INCREASED DEPOSIT LIABILITIES

There were three leading reasons. One is found in the very nature of the Federal Reserve System. Our national banking organization as it existed prior to 1914 was said to lack elasticity. Expansion to meet any seasonal or cyclical growth in trade needs was difficult to secure, as was also contraction when the need had passed. Explanation of this difficulty need not be presented here, as the reasons for it are fully understood by most students of the subject, and have been set forth many times.

Under the old law, country banks were required to maintain a reserve of 15 per cent of their deposit liabilities, of which two-fifths, or 6 per cent, had to be in actual cash in their own vaults; reserve city banks, 25 per cent, of which one-half had to be in cash; and central reserve city banks, 25 per cent in cash. The net effect was that there could be on the average about \$8 of deposit liabilities on each \$1 of reserves held by the national banks of the country, or an average cash reserve of $12\frac{1}{2}$ per cent. This varied slightly from time to time, and there have been slight differences in the estimates of students of the question, but the figures are sufficiently accurate for our present purpose.

Under the Federal Reserve Act, particularly as amended, all this was changed. By a concentration of cash in the vaults of the twelve Reserve Banks each dollar could be utilized much more effectively. Accompanying this there was a reduction in the reserve requirements of the member banks, and the net result was that \$1 of reserve furnished the basis for perhaps \$11.50 of deposit liabilities, or an

average cash reserve of about 9 per cent.² Although there may be differences of opinion as to this particular figure, there can be no dispute over the fact of a very pronounced change in the direction indicated.

Whether a change of this kind, which permitted and even encouraged an expansion in deposit liabilities, was wise cannot here be argued, but will be assumed. The United States had been paying too dear a price for its banking system. Greater elasticity was important. It could not be secured except by a centralization of reserves, and centralization of reserves means that each dollar is more effective than before. Under such circumstances an average cash reserve for the country of more than say 10 per cent or 11 per cent would be very difficult and probably impossible to maintain. Such a change as this would have resulted under any plan of banking reform and under any management. Our circulating medium would have expanded more rapidly than the growth in trade demand and, *ceteris paribus*, would have caused a rise in the general price level.

INCREASED GOLD RESERVE

This assumes no alteration in the volume of the gold reserve. A reduction in gold supply would have offset this tendency to expansion, while any increase would enhance it. On this point we need merely refer to the facts, which are that from August 1, 1914, to January 1, 1919, there was an importation (net) of gold into the United States amounting to \$1,071,669,000, which made possible (according to the above ratio of $11\frac{1}{2}$ to 1) an

addition of about \$12,324,193,000 to the deposit liabilities of our banks.

It thus appears that a plan of banking reform was deliberately adopted by the country, after a discussion extending over a number of years, which was one that was sure to increase the deposit liabilities of our banks. Moreover, any other reform, such as the so-called Aldrich Plan, would have had a similar effect.

But can the Federal Reserve System or its management be held responsible for the importation of gold that furnished an additional basis for this expansion? There is certainly no reason for such a view. The intense demand for our commodities and the rapid growth in our export balance threw on the European belligerents the burden of righting in some manner their unfavorable position. Commodities and securities, particularly the latter, were hurried over to us, and especially in the earlier part of the struggle large amounts of gold were sent also. The movement was a part of the general situation, and would have occurred had we still been operating under the old National Bank Law.

In fact, the existence of the Federal Reserve organization facilitated rather than impeded credit transactions, and thus made it easier to check the gold movement. If the older system had still been in operation much more gold might conceivably have been imported into the United States during that period.

STRAIN OF FINANCING WAR PURCHASES

But the analysis is not complete. Admitting that the new reserve requirements and the importation of gold encouraged a considerable expansion, it may be argued that the expansion that really occurred was extreme, going so far that the percentage of

² "Mechanism of Expansion Under the Federal Reserve System"; *Monthly Review of Credit and Business Conditions in the Second Federal Reserve District*, September 1, 1921, p. 12.

reserve actually held by the system was for a long time very close to the legal limit. With the New York Reserve Bank this was particularly noticeable. While the situation was a very strained one for the System as a whole, the condition of the New York Bank was at times especially weak, and was even disguised, though rather poorly, by a change in the form of its weekly reports. Had this been presented in the same form as used by the other eleven banks and by the System as a whole, there would have been shown a smaller percentage of reserve than that prescribed by the law. The form of report adopted by the New York Bank may have been as good or even superior to the other form, but the difference referred to illustrates the strain on that bank. At one time, too, the situation was materially helped by the timely deposit by the Federal government of a considerable amount of silver with the New York Bank. Also, the twelve banks of the System gave each other extensive relief by rediscounting heavily for each other, a form of assistance that was of general aid, but was particularly valuable to the New York Bank after November, 1919.

There was clearly a considerable amount of strain on the System. As has just been pointed out, the altered reserve requirements would have made possible a very considerable expansion in deposits, and heavy importations of gold increased this tendency, but neither of these facts explains the strain just referred to.

In the period from 1914 to April, 1917, there was a very heavy demand upon American banks to assist in war financing. The United States was not yet in the conflict, but the vast movements of goods, chiefly to allied countries, called for a large amount of financing, and American banks, in-

cluding the Federal Reserve Banks, assumed the burden.

The Federal Reserve System was designed primarily to aid commercial banking, that is, to assist in those banking transactions that facilitate the movement of goods from producer to consumer. To this general statement a few qualifications should be added by way of reference to such provisions as those regarding savings deposits and trust powers, but in general the statement is correct. When war supplies moved from the United States to Europe our banks gave their assistance. The volume was large but expansion was possible under the Federal Reserve System and with the increased gold supplies prevented any serious strain on the System prior to our entrance into the War and for a considerable time thereafter. Our participation in the conflict and the consequent demand for war financing by our own government definitely altered the situation.

EFFECT OF TREASURY POLICIES

Just what policies should have been followed by the Treasury Department in meeting the war emergency is something on which we probably cannot agree. The facts, however, are clear. The problem was one of securing maximum production and of diverting to war uses a very large fraction of that total product. Two main devices were employed to divert output to the government—taxation and bond issues (including certificates of indebtedness). Both of these were intended to secure the desired funds by encouraging saving. Taxation took funds from a taxpayer, usually much against his will, while he was expected to buy bonds voluntarily.

But the war needs amounted to some \$18,000,000,000 per annum, and at one period payments were as high

as \$2,000,000,000 per month, or at the rate of \$24,000,000,000 per year. Prior to the War our annual savings are estimated to have been at the rate of no more than \$6,000,000,000 or \$7,000,000,000 per year. To treble or more than treble the amount available was probably too great a task for taxation and bond issues combined. At any rate, policies were adopted that resulted in an inflation of the currency and hence forced loans from the general public.

RESERVE BANK FACILITIES FOR WAR FINANCING

If one is to appreciate the position of the Federal Reserve Banks in war financing, several facts must be kept in mind. One is the altered reserve requirements of member banks already referred to. Some of the reductions were made after we entered the War, particularly by the provision that the reserves specified were to be kept, not in the member bank's own vault, but as a deposit account with the Reserve Bank of its district. Along with this must be remembered the other amendment to the law that allowed gold in the hands of the Federal Reserve agent held by him against issues of Federal Reserve notes to be counted as part of the required reserve of his Federal Reserve Bank. Also, there must be mentioned the policy early adopted by the Reserve System of concentrating the gold and gold certificates of the country in the vaults of the Reserve Banks, Federal Reserve notes being issued in their place.

There were two other important provisions of the law. One of them states that the Reserve Banks are to be fiscal agents of the government. This places them in a position in which they are compelled to coöperate in methods of financing decided upon by the Treasury Department.

The other provision is one that appears to the casual reader as of slight significance, but it furnished the basis for many of the important operations of war financing. In Section 13 of the Federal Reserve Act the powers of the Reserve Banks are enumerated. Among the prohibitions there set forth is one against loans on "notes, drafts or bills covering merely investments, or issued or drawn for the purpose of carrying or trading in stocks, bonds, or other investment securities, *except bonds and notes of the Government of the United States.*"

The exception in the last words of this quotation was not particularly significant at the time of the passage of the Act—in fact it was rather commonplace. Yet it became very important during the War. The Reserve Banks could and did lend on government bonds and notes as security.

To the large amount of latitude thus allowed additions were made from time to time through rulings made by the Federal Reserve Board. Thus it does not seem entirely clear to the layman whether the law permits a Reserve Bank to discount the direct obligation of a member bank. The writer was of the opinion that it did not, and that only the rediscounting of customers' paper was acceptable. That he was wrong is shown by the fact that this direct discounting was permitted on a very large scale. Member banks discounted their own notes accompanied by Liberty Bonds as collateral security.

Closely associated with this policy were the decisions that notes of this sort might run for as short a time as fifteen days, that they might be renewed somewhat freely as they matured, and that there should be charged for such loans a discount rate no higher than the interest rate paid by the government on the bond offered as collateral.

The provisions of the law as cited opened the way, and the decisions just mentioned let down the bars completely. What followed may be visualized if one's imagination permits him to assume two printing presses in the Treasury Department. On one of them were printed government bonds for sale to the public through the Reserve Banks, which were the fiscal agents of the government. The Reserve Banks delivered the bonds to member banks for actual sale. A customer who was besought to buy a bond protested that he had not the funds, but was informed that he need pay only a small amount at a time, his bank agreeing to advance a loan, retaining the bond as collateral security and charging only the same rate of interest as paid by the government on the bond.

This seemed generous and so aided the sale of bonds that the banks were in need of help to carry their part of the load. They were reassured by being told that they could give their own fifteen-day notes to their respective Reserve Banks, provided they would present with them as collateral these same Liberty Bonds that had been purchased by their customers, but which were not to be delivered until fully paid for. They were also assured of the same low interest rate and of an easy renewal of the notes as they fell due.

Imagine still further that this offer brought such general response from the banks that the Reserve Banks were overwhelmed and their officers hurriedly and urgently besought the Secretary of the Treasury for relief, because of their lack of funds. His answer, however, was reassuring. He merely pointed to the other printing press on which were being printed great quantities of Federal Reserve notes, which were furnished to the Federal Reserve Banks as needed.

Thus the Treasury on one press printed paper money (Federal Reserve notes) which it delivered to the twelve Federal Reserve Banks. They in turn gave them to their members in return for the notes of these banks secured by Liberty Bonds. The member banks were then able to pay the government for the bonds struck off on the other printing press.

The description may be fanciful, but only slightly so. In the good old days, say in the Civil War, the process was much more simple and direct. The government printed the United States notes—the greenbacks—and put them directly into circulation. The modern method is more complex and has its advantages, but in many of its features it is the same.

RESPONSIBILITY FOR INFLATION

As a result of the analysis we have been making, it seems clear that the Federal Reserve Board and the officials of the Federal Reserve Banks cannot be charged with responsibility for any "inflation" that occurred down to the summer or fall of 1919. It was due to (1) altered reserve requirements; (2) an influx of gold, and (3) the policies of war financing for which the Treasury Department was chiefly responsible.

Of the three kinds of depreciation mentioned at the beginning of this article two were evident. The American dollar had greatly appreciated in terms of the leading European currencies, so much so that various stabilizing devices were employed. Foreign currencies had depreciated in terms of our dollar. For this condition neither the government nor the Federal Reserve System was responsible. If we had been still operating under the old National Bank Act with all of its rigidity, the foreign exchange situation would have been no better and might have been worse. After a few

months of wild fluctuations foreign governments gained control of the exchanges by using "pegging" devices, an arrangement that would have been much harder to make if our banking system as a whole had been less well organized. After we entered the War responsibility for this control was largely taken over by our government, which of course used the Federal Reserve System as its fiscal agent. From the proceeds of Liberty Bond sales, advances were made to foreign governments, our Treasury Department receiving and holding their notes for the amounts involved.

There was also a depreciation of our own money, the dollar, in terms of commodities. Prices rose rapidly, but as we have noted this was due in the main to (1) the greater possibility of expansion that would have existed under any reorganization of our banking system; (2) the heavy importations of gold and (3) the fiscal policy of the Government.

The second form of depreciation did not occur; at least, there were no outward evidences of it. Our various forms of paper money at no time were depreciated in terms of gold. In case an open gold market had existed, the situation might have been different, and a premium on gold might have appeared, though probably not.

POST-ARMISTICE TRENDS

But what can be said of conditions from the close of the War late in 1918 until the spring of 1920? During this period prices continued to rise, while the volume of Federal Reserve notes and of deposit liabilities rapidly expanded. Gold imports had ceased and in 1919 the movement was reversed, considerable amounts of gold leaving the country. The exchanges of many of the countries that had been neutral during the War (and even those of

many of the minor belligerents) were against us, and, as restraints on the exportation of gold were gradually removed, the gold started out. The War was over, but prices still rose, while note issues and deposit liabilities kept increasing in spite of the fact that the gold reserve was being withdrawn. The percentage of reserves held by the Federal Reserve Banks declined until it was perilously close to the legal minimum.

In this period, what kinds of appreciation and depreciation occurred? At the end of 1918 a number of the exchanges were against us, but by the fall of 1920 all of the leading exchanges were in our favor, with the exception of Hongkong, Shanghai and Yokohama, and they were rapidly falling, especially the first two. Exchanges that had already been in our favor were becoming more so. The American dollar was appreciating in terms of nearly every other money in the world, or, to reverse it, those moneys were depreciating in terms of our dollar.

Commodities were clearly appreciating in terms of our own money, the evidence being the rise of the price level until well into 1920. Our money was depreciating in value in terms of commodities. There was also a tendency toward a depreciation of paper money (including bank deposits) in terms of gold. Reserves were declining and liabilities expanding with a resultant decline in the percentage of reserve held. Considerable uncertainty and doubt appeared, but there was no actual premium on gold recorded. There was merely a tendency that operated as a distinct warning and that called for corrective action.

The movement was therefore a mixed one. Our dollar was appreciating in terms of foreign money, but was depreciating in terms of com-

modities, while our paper money and our bank deposits were being placed in a more and more precarious position with reference to our standard money—gold. The exportation of gold was helping to appreciate our dollar in terms of foreign currencies, but was imperilling the gold standard at home by weakening our gold reserves while bank liabilities were mounting.

CONDITIONS HINDERING RESERVE OFFICIALS

In fairness to the Federal Reserve officials, several facts should be pointed out. First of all war financing was by no means over. The Victory notes were issued in June, 1919, followed from time to time by large blocks of certificates of indebtedness. The actual fighting of the War was over, but the fiscal operations were not. As fiscal agents for the government the Reserve Banks could not immediately free themselves from the responsibilities that have already been described.

Next it should be remembered that what occurred in the United States was in part paralleled in other countries. Prices were rising in England, France, Italy, Sweden and elsewhere, much more rapidly than in the United States. It is true that many of these countries were more seriously affected by the War than we were, but it is not unfair to urge that many of the same influences that were operating abroad were also affecting us. Complete dissociation from so world-wide a movement could not reasonably have been expected. The upward movement which had lifted prices prior to the signing of the Armistice was not exhausted, and the rise continued. Just as military activities were in evidence for a long time, so the economic forces set loose between 1914 and 1918 could not suddenly be reversed.

But this crude analogy between military and economic facts is apt to be very misleading. A more satisfactory explanation is to be found in the fact that the Federal Reserve System was (and for that matter still is) in the first phase of its development. Some of its most important features are not yet fully understood even by many bank officials. Several years after the organization of the Reserve Banks a prominent banker who was serving as director of one of the twelve institutions was said to be unable to grasp some of the fundamentals of the law, and even today a thorough comprehension of some of its leading features is by no means common.

One of the misconceptions that has persisted is the idea that the System is to be merely a source of relief in times of difficulty. That assistance through rediscounting is needed in times of seasonal and cyclical strain is easily understood, but that the Reserve Banks should at all times exercise a supervision over the banking system and often impose its control is not fully realized. Even when the possibility of this control is understood the result is often intense resentment at what seems to be unwarranted interference.

Such control is, however, the usual thing abroad, and the Federal Reserve Act has in it numerous provisions which give a similar power to our system. But legislative authorization is not in itself adequate. The Federal Reserve Board and the officials of the twelve Reserve Banks cannot move too far ahead of public opinion, especially banking opinion, nor can they go too violently in opposition to it. Perhaps the most important single device by which the Reserve Banks can control the money market is the rediscount rate, but the mere statement of that fact does not mean that

they can freely employ this device. An important measure of public support is necessary in case such a power is actually to be used.

WHY THE DISCOUNT RATE WAS NOT RAISED

It has been argued that at the close of active hostilities the Reserve Banks should have exercised this power by rapidly raising their rediscount rates until they were above the rates charged by member banks to their customers. There would then have been no gain to the member banks in rediscounting; they would have curtailed accommodations to their customers and inflation would have quickly been checked. The Bank of England thus controls the money market of England. Why could not our Reserve Banks do the same? What reply can be made to this argument?

Two observations may be made. First of all, the British method has been employed for many years, and the banking community of England is accustomed to it, accepting it as a matter of course. Our Reserve System was authorized in 1913 and not organized until 1914, several months after the Great War had started.

Next, it is to be remembered that from 1914 to 1918, and especially during 1917 and 1918, the fiscal policy of our government made it impossible to initiate such a policy of control. A rediscount rate higher than the market rate, or, at least, one higher than the rate of interest on Liberty Bonds, would have made impossible the methods of financing that were employed.

From 1914 to April, 1917, the Federal Reserve Bank of New York did succeed in keeping its discount rate above that for commercial paper, thus adhering to the policy of the leading foreign banks. With the entrance of the United States into the War,

conditions changed. During 1917 and 1918 the minimum discount rate of the Bank of England was (as is regularly true in England) considerably higher than the market rate on ninety-day bills in London, but during this period the discount rate of the New York Federal Reserve Bank for commercial paper was regularly lower than the prevailing market rate in New York for the same kind of paper. If control of the market had been the only purpose to be kept in mind during this period, it would have been wise to have raised the discount rates of the Reserve Banks more rapidly than market rates rose, and thus have established control.

Armistice Day found the Reserve Banks still not in control of the situation, and able to influence it only to a minor degree by a scrutiny of particular paper presented for discount or by oversight of the rediscounting done by particular member banks. A Victory Loan had to be floated, and other post-war financing was necessary. Moreover, member banks had discounted large amounts of their own obligations at the Reserve Banks with Liberty bonds as security. On November 15, 1918, the total volume of bills discounted with the Reserve Banks secured by government war obligations was \$1,358,416,000, and on February 27, 1920, it was \$1,572,980,000.

Difficulties were accordingly very numerous. To place restraints upon the expansion from 1918 to 1920 would have been difficult, and, even if practicable and desirable, would have called for a very high degree of wisdom and courage. It is the opinion of the writer that our government was very unwise in its decision to float its war issues of bonds and certificates of indebtedness at such low rates of interest. When so large an amount of saving was needed much higher rates would

have been better. The low rates actually offered kept the general security market quiet for a considerable time, but such a policy inevitably meant a rise in prices that injured the general public, including holders of securities, far more than would the offer of higher rates on the new government issues. Nevertheless, the policy was adopted, rates were kept down and the Reserve Banks were and still are the fiscal agents of the government. So long as they are fiscal agents the way in which they perform their other functions must be affected by this relationship.

THE NECESSITY FOR HIGHER DISCOUNT RATES

By the spring of 1920 conditions had somewhat altered. The larger part of war and post-war financing had been completed, and the responsibilities of the Reserve Banks to the government were somewhat lessened. A large volume of rediscounts was still in the possession of the Reserve Banks, but more freedom of movement than before was possible. Accordingly, their policy was altered.

It was clearly time. A very strong case could have been developed for earlier action, but certainly longer delay would have been unwise. Prices were still rising, discounts with the Reserve Banks were increasing and their deposits and their issues of Federal Reserve notes were mounting with leaps and bounds. The percentage of reserves held was near the legal minimum. All banking experience indicated that danger was ahead. Speculation was rampant, and was sure to be followed by a reaction whose seriousness would be proportionate to the delay in its appearance.

There were several special reasons for concern. Our own spring demand for money was at hand, to be followed

the next fall by the usual fall demands for crop-moving purposes. Also the situation in Europe was most disquieting. Monetary systems there were developing alarming tendencies. Prices were rising, bank liabilities expanding and reserves declining far more than in the United States. If a general collapse had occurred we would have been unable to meet it without a general breakdown of our entire business and financial structure. We were already strained almost to the breaking point.

Under such circumstances it was not possible to rely on the judgment of American business men to impose checks of their own. A few began to contract their operations, but the larger number went on piling up their own liabilities at the banks and extending credits abroad and at home with little or no appreciation of the unsound condition. Early in 1920 the rates were raised. It was none too soon. First in Japan and later in other countries the reaction came and prices began to crumble.

In the face of this collapse credits were extended by member banks to customers, often unwisely, but on the whole with a view to easing business through the trying period of the crisis and the subsequent depression. In turn the Reserve Banks gave assistance to member banks at the new and higher rates, but with a very considerable freedom. After a few months deposits and note issues began to decline and reserve percentages to rise, until a condition of comparative banking security was attained.

It was, however, a trying experience. Those who suffered from the fall in prices resented bitterly the new policy that seemed to them responsible for their losses. The sufferers as separate individuals were not, in most cases, to blame. They were merely a part

of a cumbersome and faulty business organization in which periods of excessive expansion and contraction are a frequent and somewhat regular occurrence. In many individual cases injustice was doubtless done borrowers, but on the whole our constructive criticism should be directed at an economic organization that makes such an outcome possible.

CAUTION STILL IMPERATIVE

Nor is the danger by any means over. The period ending in 1920 was one in which money was depreciating rapidly in terms of commodities, and our deposits and paper money in danger of depreciating in terms of gold, as they have actually done in many other countries. The danger in these directions has for the present at least disappeared. But the very policy of higher discount rates which aided in giving this relief brought with it certain unfortunate consequences. Today the currency of nearly every foreign country is at a heavy discount in New York. Gold was for a time being exported from the United States, but from January 1 to November 1, 1921, the net importations of gold have been about \$564,000,000, and the gold holdings of the Reserve Banks have increased by about \$666,000,000.

This influx of gold, together with a decrease in deposit and note issue liabilities, has increased the percentage of reserves held, and relieved us from one serious danger—that of a reserve deficit. But we are at once faced with another. As reserve ratios rise borrowers cannot understand restraints on borrowing. Depreciated exchanges carry no warning to most of us. Foreign government budgets that fail to balance and the imminence of defaults and perhaps repudiations cause little alarm. A default by Germany in her next reparation payment, now

almost due, seems at this writing almost certain. If it occurs, the effects on French finances and business, and through France on all Europe, will be almost incalculable in their gravity.

It is a time for the exercise of the greatest caution. No matter what policy we adopt, hardships will result. Our choice is merely between evils, and no matter what our decision the path ahead is by no means bright. Higher discount rates in the face of the depreciated exchanges means still heavier gold imports. Withdrawal of gold from foreign countries weakens them still more, and adds to our stock of gold that is already disproportionately large.

On the other hand, low interest rates encourage an expansion which ought for our own sakes to be held in check. High bank reserves are by no means a sufficient excuse for a generous loan policy at the present time. A combination of low rates with a careful limitation of loans is the ideal, but very difficult of attainment.

Since default by Germany seems so imminent the sooner it is faced the better, even if it is disguised as a moratorium. After it comes there will be a more general appreciation of what is ahead, and plans can be more effectively made for real recovery. One of our present dangers is the possibility of developing an unhealthy optimism that will lead to a business expansion, too rapid and in wrong directions. If it occurs, the reaction will be worse than a prolongation of the present depression. Gradual recovery is trying, but will be far better.

Then, too, we may hope that during the period of readjustment our Federal Reserve Bank will be able to secure control of the money rate. Such a control will be no panacea, but it will be an important aid in bringing more stability in our monetary and banking system.

Expansion and Contraction as Seen by a Business Man

By J. V. FARWELL

President, John V. Farwell Company, Chicago

EXPANSION and contraction in volume of business and in credits have always existed in modern times. Human nature is such and conditions of production and consumption are such that there can be no dead level. Unfortunately, these tendencies nearly always run to extremes, so that we usually have, about once in so often, periods of over-expansion, and, as a consequence, we get over-contraction. Many bankers will admit the existence of the first of these extremes, but they are not so ready to admit the second. It seems to me that both are very real, and that in many cases both of these extremes can be prevented.

As the process of expansion is going on, each business sees most clearly the part that applies to its own experience, while the rest of the process is often either unseen or obscure. A business man, either in manufacturing or distributing, comes in contact with the processes of expansion, from the beginning to the end, from the time when the contract is first made to the end when credit is made for financing and the credit given in selling. Over-expansion is pretty sure to occur whenever such contract is made for a larger quantity than a normal amount used by the business concern, or when it runs through a longer period of time in the future than is ordinarily contracted for by the company, or when the contract is made for a price considerably in excess of the cost of production.

The first step in this expansion is caused, as a rule, by the state of mind of the buyer, who thinks he sees a much larger business ahead than the company has ever had before, or who believes that goods are going to be very scarce,

as when the war purchases were being made, and that prices are going higher. It is this thought that produces his act of expansion. This thought and this act are often contagious, so that other people take up the idea and a feverish state of mind, like an epidemic, sets in among all buyers, which results in large purchases for delivery running over a long period of time.

HOW BANKERS COULD CHECK OVER-EXPANSION

In the distributing business, for instance, such buying requires at the start very little credit, and necessitates hardly any simultaneous credit expansion. The wholesaler might place an order for one thousand cases of cotton goods to be delivered during six months, beginning three to six months after date of purchase, the seller being sold up until that time. All that the manufacturer has to do is to cover his cotton on the cotton exchange and put up a margin for so doing. The wholesaler puts up no money at all and no credit. In fact, no credit would be required from the banks for, say, sixty to ninety days, when the first shipment of cotton is to be paid for, and no bank credit asked for by the distributor or wholesaler for perhaps six months, when the bill of the first delivery becomes due.

It is obvious, therefore, that while the business man sees expansion both at time of making the contract and at the time when he asks for credit to pay his bill, the banker would know nothing, except in a general way, of the great mass of purchases so made until some time after the contracts were signed, and perhaps not until the bills came due. Bankers are well posted

in a general way only as to what their customers are doing or expect to do. In my judgment, they should always find out from their customers not only what their stock on hand is at a given time, but also what their commitments or advance purchases are, as these commitments are often the source of as great a loss in the case of a falling market as is stock on hand. If bankers asked these questions continually, especially at the period of requiring statements from their customers, they would be in a better position to check over-expansion at the start, by either discouraging purchases or refusing to give the necessary credit or raising the rate of interest charged.

If, in turn, the Federal Reserve Banks were kept in close touch with all these movements through the leading banks and merchants, as is now being done in many centers, this frenzied state of mind could be cooled off, and large contracts for future high prices prevented. The disease would be stopped before it became an epidemic. It is for this reason that it seems to a business man that rates of the Federal Reserve System should be raised just as soon as bankers see this situation of expanding contracts coming on, not when the bill comes due and the customer asks for credit to pay for it. At that time, the banker can do only one of three things: First, grant the credit; second, advise the customer to repudiate the contract, which he would do under the circumstances, and third, let him squirm out as best he can, no matter what the loss. The last course would probably cause many failures.

FEAR CHECKS OVER-EXPANSION

Over-expansion can be prevented only by arousing in the mind of the buyer a fear that if he makes an excessive contract at high prices, he will get into trouble. He has been led to think

in a general way that under the Federal Reserve System his bank would always look after him and there could be no trouble. Many told him if a decline in prices did occur, it would come gradually, even though all history tells us that over-expansion breaks suddenly and prices come down sharply. Even with prices raised to three or four times above normal, it was often felt that no merchandising difficulties could arise, for do we not have the Federal Reserve Banks?

Under the old system, before the Federal Reserve Act was passed, every bank had to depend to a great extent on its own resources, and to live or die according to the distance it got from shore in a storm. This restricted the banker's available credit and lessened the merchant's confidence in getting help. Both banker and business man had a very well defined fear of over-expanding.

While the Great War was on, and even after the Federal Reserve Act was passed, no merchant felt like buying a large amount of goods at high prices for long-time future delivery, as no one could tell when it would be over. When it was started, some thought it would last ninety days, some thought it would last one year, and some two or three years, but it was all uncertain, and bankers and merchants stayed pretty close to shore. They were assisted in not buying at high prices by the action of the government in arranging price fixing bureaus.

When the War did end, there were no large contracts outstanding at high prices and it took only three or four months to make the proper re-adjustments. After that, however, merchants and bankers lost not only all the fear which they had had before the Federal Reserve Act was passed, and which formerly produced panics, but also all the fear which existed while the War was on.

NEED OF A PROGRESSIVE REDISCOUNT RATE

As this fear is very necessary to both banker and business man, I am much in favor of the progressive rate of rediscount, so that those who have the disposition to offend will know in advance that they will be heavily penalized. As the phrase goes, that clause "puts teeth in the law" and the one who first over-expands should be bitten first. A level rate puts all in advance in the same category and does not stop over-expansion at the particular source where it has started. Another reason why the progressive rate law should never be repealed is that in many districts in the United States 8 per cent is the normal rate, and 10 per cent not uncommon. Instead of there being a penalty in charging such banks 7 per cent there is a constant inducement left for them to expand. Federal Reserve Banks must have a sliding scale of rates to meet such common conditions.

As this over-expansion did not occur in the case of all banks and in all districts, but with only a certain percentage of the banks in every district, and as some large banks in big districts were just as bad offenders as the small banks in country places, it seems to me obvious that such a law is not only wise but necessary, in order to prevent over-expansion at the real source whenever it may crop out.

INTEREST RATES ONLY ONE CHECK ON OVER-EXPANSION

Perhaps I have laid too much stress on the efficiency of the rate of interest to stop over-expansion. It is only one of the remedies. Bankers themselves will have many instances where they will have to curb banks and merchants who are willing to pay high rates, if only they are allowed to continue in

their mad careers. Federal Reserve Banks, more than ever before, will have to hold a tighter rein to stop such careers by flatly refusing to make loans and especially by stating beforehand that they will so act. Only such advance information, inspiring the proper fear, will prevent the first acts of over-expansion, which, if allowed, bring all others in their train with all the consequent disasters.

The solution is in the hands of the banker. If he will get at the facts and use his strategic position in granting or refusing loans and regulating rates of interest, he could check this over-expansion before it becomes dangerous. In saying this, I do not mean that the banker is as responsible as the business man in starting over-expansion, for the business man is the one who acts first. However, the banker often has a broader view of general conditions, not only in this country, but all over the world, and can, therefore, see the general trend of things earlier. It is for this reason that I have at other times contended that the various Federal Reserve Banks should have raised their rate sharply in November and December, 1919, when the large buying movement at high prices began. Instead of doing that, rates then were as low as $4\frac{1}{2}$ per cent for rediscount with the Federal Reserve Banks. This was almost an invitation to buy heavily and certainly would lead an ordinary business man to assume there would be nothing wrong with the credit situation in the near future.

PREVENTION OF INVENTORY SHRINKAGE

The second important process in general expansion takes place when the various business concerns find their excessive bills coming due and are obliged to resort to banks for large loans. As these goods have been

bought in large quantities at high prices, it takes from two to three times a normal loan to carry a given amount of actual merchandise. This is repeated many times all over the country and all down the line through the different processes of manufacturing. The deposits and loans go up and discounts at the Federal Reserve Banks increase. While this paper so discounted is, in one sense, self-liquidating, as the term goes, that is only true insofar as the prices at which goods are bought can be maintained.

If prices go down half rather sharply, as they did in the fall of 1920, it is only one-half self-liquidating, and if the quantities bought at the high prices are far above normal, it may only be one-fourth self-liquidating, because the concern which bought the goods has no normal channels through which the merchandise can be sold. This brings upon the market so-called "distressed merchandise" which is sold regardless of cost or competition, and aggravates still further an already disastrous situation. It is for this reason that the banker should be somewhat familiar with the prices at which goods are bought, as compared with normal prices, before he encourages a merchant to buy, or before he gets the whole economic structure, including Federal Reserve rediscounts, built up on the basis of high prices.

The Federal Reserve Banks have, in my opinion, been very unjustly criticised for raising rates above six per cent, as though the raising of the rates in the spring of 1920 caused all the trouble. My only criticism is that they did not raise them early enough and before all the harm was done by the making of the vast amount of long-term contracts at the highest prices since the Civil War. They had to act some time, and it was better late than never. The inverted pyramid

would have toppled over any way, but less damage would have been done by the fall if the base, which was up in the air, had not been allowed to grow so large.

PREVENTION OF OVER-CONTRACTION

While nearly every one admits that over-expansion can be checked, all do not agree that over-contraction can be prevented. Many bankers have told me that we must have a thorough liquidation, which means, in the last analysis, that prices must go below cost of production, mills close up, business stop, much of the circulation of credit and merchandise cease, until this thorough liquidation has run its course. Before the days of doctors and the use of remedial measures, it was undoubtedly thought that all epidemics would have to run their course, that nothing could be done but let the people die. In other words, we must have a thorough "liquidation" and death of people. It is well known that a proper mental condition of the patient is often just as necessary as some stimulus to help out the heart action. So in business affairs, proper mental attitude and some assistance from banks and business men generally is necessary to prevent contraction's going the limit. I think that there are often times when it is evident that contraction has about reached the end, and when the mercantile speculation fever at least has gone. At that time interest rates should be reduced before the irreducible minimum has arrived and some inducement made for people to go ahead and do business, so as to bring about a movement of merchandise and a better employment of the great army of unemployed, which always increases greatly during an aftermath of extreme contraction.

The War Finance Corporation has stepped in and done some of this work

during the last nine months with great judgment and success. It is extremely fortunate that we had some such organization to prevent the so-called complete and disorderly liquidation, which some interests seemed to think absolutely essential to better times.

EDUCATION THE REMEDY FOR OVER-EXPANSION AND OVER-CONTRACTION

It is evident that the banker and the business man are in a sense trustees of the prosperity of the nation, in that their combined acts, if unchecked, may bring about hard times and unemployment to thousands of men who have no power of decision in starting a movement which will result so disastrously. I say they have no decision in making the start, although, after it is about half way along, the wage earners have much to say when they begin to buy heavily, and, feeling

higher and rising cost of living, begin to demand more pay, which, in turn, adds to the price of the manufactured articles.

On the other hand, in times of over-contraction, the business man and the banker have often lost their power of direction and voluntary decision. They are controlled almost entirely by the general populace, which refuses to buy, and by the wage earner, who will not consent to a reduction of his wages commensurate with the changed cost of living and the new world conditions brought about by the collapse of the boom. It seems to me, therefore, that education is needed on both sides, first to prevent expansion from becoming *over*-expansion and contraction from becoming *over*-contraction. Sound common sense and experience will finally be the teachers if expert economists are not.

Currency Expansion and Contraction

By JAMES B. FORGAN

Chairman of the Board, The First National Bank of Chicago

AS is well known, the Federal Reserve System is the result of the financial panic of 1907. At least, it was this financial crisis that hastened the establishment of a more rational system of issuing currency than had previously prevailed in the United States. To be sure, there had been earlier movements to make possible an automatic expansion and contraction of our currency. As far back as 1902, and probably earlier, there are to be found discussions in regard to our currency at every convention of the American Bankers Association. Long before the Federal Reserve Act was thought of, it was clear to any thinking banker that our whole cur-

rency system needed a thorough revision. In 1902 Charles N. Fowler, Charles G. Dawes and Horace White made addresses dealing with the currency problem at the convention of the American Bankers Association. The chief difference of opinion in that day was between the advocates of a highly taxed emergency currency and those of a low taxed credit currency, or, as General Dawes spoke of it, "a system of asset currency subject only to a nominal tax." As a result of this agitation, there was appointed at that meeting, held in New Orleans, a special Currency Committee, a forerunner of the Currency Commission which still exists. The Currency Committee ap-

pointed in 1902 made a report at the meeting of the American Bankers Association held in San Francisco in 1903, in which it favored an emergency circulation subject to a heavy tax, which, it was hoped, would insure the redemption of this currency as soon as the emergency which had called it forth had passed. Discussions continued until the agitation finally led to the appointment by the Association at its convention in St. Louis, October 16-9, 1906, of the present Currency Commission, of which Mr. A. B. Hepburn of New York has been Chairman and the writer of this article, Vice-Chairman, ever since its creation. Its first report appears (pages 100 and following) in the Appendix of the Proceedings of the Thirty-Third Annual Convention of the American Bankers Association, held at Atlantic City, September 24-7, 1907. Practically everything that now appears in the Federal Reserve Act was foreshadowed in the discussions of this Commission.

LESSON OF MONEY PANIC OF 1907

Probably these discussions would have continued to be haphazard and without practical result had it not been for the financial panic of 1907. There is no need to go into the history of this panic in this article. Its interest to us is due to the fact that it made clear to the public at large what had long been known to experienced bankers, that the country was liable at any moment to suffer all the evils of business depression, not because of any inherent difficulties in the business situation but owing solely to the faulty mechanism which prevented the expansion and contraction of the circulating media in accordance with momentary requirements. The panic of 1907 was due simply to the fact that the government was unable to issue a sufficiently large amount of paper

money to tide over a temporary situation, and, owing to this inability, a number of banks failed, and perfectly solvent corporations and business firms found themselves in financial difficulties without in the least being guilty of any commercial sins of commission or omission. The situation had to be tided over by extra legal methods, such as the issuance by clearing houses of certificates which really took the place of ordinary currency and were, therefore, a direct violation of the provisions of the Federal Constitution. A recent writer has summarized the condition as follows:

The chief defect of the old national banking system was its decentralization resulting in scattered bank reserves. Even though the national banks of the United States possessed enormous aggregate cash reserves yet, before the establishment of the Federal Reserve System, those reserves were ineffective. There was no method of mobilizing cash for use where and when it was needed. No responsible body was empowered to adopt or carry out discount or other policies to avoid a financial panic or to handle a panic when it occurred. Other countries had economic crises; the United States not only had crises but financial panics as well. This is the reason that under the national banking system the United States was called "an international financial nuisance."¹

As a result of the experiences of 1907, public opinion compelled Congress to take some action, and it appointed the National Monetary Commission. Thereafter, the Currency Commission of the American Bankers Association acted largely in an advisory capacity to the governmental body with which it held frequent conferences in Washington. Out of this grew, first, the Aldrich-Vreeland Act, and, later on, the Federal Reserve Act.

¹ Persons, "Basis for Credit Expansion." Harvard Committee on Economic Research. Vol. II, p. 21.

CURRENCY FUNCTION OF RESERVE SYSTEM

The Federal Reserve Act, in the first instance, is designed not so much for the purpose of compelling banks to keep certain fixed reserves and the like, as, primarily, to meet the changing requirements for currency, a function which the large central banks of Europe have performed for their respective countries for many decades. It is difficult to see how we could have weathered the storm of the War and the years immediately following without some such arrangement as that provided by the Federal Reserve System. It is a well known fact that the banks have been and are carrying many industries which would have been forced to the wall, injuring our whole credit structure, had it not been for the fact that the banks in turn have been able to obtain needed currency from the Federal Reserve Banks by rediscounting notes. Since banks are compelled to meet the demands made upon them by payment of currency over their counters, they would otherwise have reached the end of their resources almost immediately, owing to the tremendous expansion of business caused by the War. They would, therefore, in order to meet their own liabilities, have been compelled to call upon business houses to pay off their loans and, if necessary, would have had to demand the liquidation of perfectly solvent business enterprises in order to obtain the needed repayment. The banks, fortunately for our whole country, have not needed to resort to such extreme measures, owing to the rediscount privileges inaugurated by the Federal Reserve System, with which rediscount privileges our currency system is closely connected.

The Federal Reserve Act provides that any Federal Reserve Bank may issue Federal Reserve notes based on

collateral security consisting of notes, drafts, bills of exchange or acceptances acquired either by purchase in the open market or through the rediscount privileges exercised by its member banks. The Bank is compelled, in addition, to maintain reserves of gold of not less than forty per centum against its Federal Reserve notes in actual circulation. This gold reserve held against Federal Reserve notes may fall below forty per centum, in which case "the Federal Reserve Board shall establish a graduated tax of not more than one per centum per annum upon such deficiency until the reserves fall to thirty-two and one-half per centum, and when said reserve falls below thirty-two and one-half per centum, a tax at the rate increasingly of not less than one and one-half per centum per annum upon each two and one-half per centum or fraction thereof that such reserve falls below thirty-two and one-half per centum."²

It is interesting to note that practice has shown that this check provided by the Act has proved to be entirely sufficient under the most exacting and trying conditions. Though there have been times within the last few years when the net reserve of gold against Federal Reserve notes outstanding was dangerously close to the legal minimum required, the ratio never actually fell below forty per centum.

It is under these provisions that the so-called expansion and contraction of our currency has taken place and is taking place. The total circulation of currency of all kinds in the country on September 1, 1921, was \$4,672,030,-221, of which more than one-half was represented by Federal Reserve notes. While at the beginning of this year the total circulation of all currency amounted to \$5,500,702,153, the

² Federal Reserve Act. Sec. 11 (c).

changes were almost entirely in the item of Federal Reserve notes, since the rest of the currency is more or less constant.

CURRENCY INFLATION AND DEFLATION

Before going further into this question of expansion and contraction of our currency, it is necessary to distinguish sharply between currency expansion and currency inflation. A recent article defines these terms as follows:

Currency expansion is the absolute increase in currency of various forms—chiefly gold, silver, bank notes, government notes, and deposits subject to check. Its opposite is *contraction* of the currency. *Currency inflation*, on the other hand, is relative, that is to say, an expansion of currency *out of proportion* to the increase in the absolute quantities of goods and services exchanged, due allowance being made for variations in offsets of book credits, in the "rapidity of circulation" of currency, and in the frequency with which goods and services are exchanged. The reverse is *currency deflation*—a decline in currency relative to the amount of goods and services exchanged. Currency inflation rarely takes place in exact proportion to currency expansion, or deflation in proportion to contraction, since changes in quantities of goods and services exchanged are constantly taking place. For the same or other causes, the equivalent of currency inflation or deflation, or, one might say, *effective* currency inflation or deflation, may take place without corresponding changes in the quantity of currency. So, after the Civil War, deflation in the United States was accomplished in the main, by "growing up to the currency" rather than by contraction. On the other hand, changes in the currency requirements ordinarily take place slowly; consequently, a marked expansion of currency usually involves currency inflation; and deflation is usually accomplished but slowly if it is unaccompanied by contraction of the currency.³

³ Davis, "World Currency Expansion." Harvard Committee on Economic Research. Vol. II, p. 8.

From this it is evident that under the Federal Reserve Act we have had almost no experience in expansion and contraction, though more than enough in inflation and, at present, in deflation. In other words, the establishment of the Federal Reserve System was followed almost immediately by the crisis brought on by the European War, which, owing to governmental needs, brought about an inflation of the currency entirely out of proportion to the ordinary normal business requirements. Likewise, the reaction that has taken place since last year is a process of deflation, again out of all proportion to what is to be expected under normal and regular business conditions. One thing, however, has been proved, and that is that the raising and lowering of the rediscount rates by the Federal Reserve Banks influences very greatly the lending of money by the banks. The question may be raised whether this is not due more to the pressure of the example set by the Federal Reserve Banks than to the mere change of a relatively small percentage in the rediscount rate. But be that as it may, the banks in the country have followed the lead of the Federal Reserve System. Possibly it would have been well if the raising of the rediscount rates after the Armistice had taken place earlier. It is an open secret that the members of the Federal Reserve Board, as well as of the Federal Advisory Council, advocated such a policy long before it was put into effect. The needs of the government, however, intervened, and the necessity for the Treasury to complete its war-time funding operations superseded the dictates of a sound economic policy. Likewise, the successive lowering of the rediscount rate may be due more to the exigencies of politics than of sound banking practice. A recent

pamphlet issued by the Chase National Bank of New York has presented many effective arguments which tend to show that the rediscount rates ought to be determined by the prevailing commercial paper rate, rather than by other considerations.

The peak of Federal Reserve notes in actual circulation was reached on October 22, 1920, at which time these amounted to \$3,356,199,000. These notes were first issued in November, 1914, but in the beginning increased very slowly. Even as late as July 1, 1917, the total of Federal Reserve notes outstanding was only \$544,412,775. By July 1, 1918, the amount had, however, more than trebled, amounting at that time to \$1,713,074,255. At the time of the Armistice, the amount had increased to \$2,562,517,000, and on September 21, of this year, the amount in circulation was still \$2,474,676,000, a reduction, however, of nearly one billion dollars from the highest point. It is to be hoped that this reduction will continue until we reach a point which may be regarded as meeting the normal requirements of business. Until now, banks of the country have acted in a patriotic manner and have generally forced liquidation. It may be feared, however, that such an unselfish policy will not be continued indefinitely if the Federal Reserve Banks, by keeping the rediscount rate below the ordinary commercial rate, make it profitable for their member banks to lend as much as possible. We therefore face the danger of a period of renewed inflation which must not be confounded with normal expansion as defined above.

CURRENCY EXPANSION AND CONTRACTION

As already indicated, the real function of the Federal Reserve System is to make possible the expansion and

contraction of the currency, demanded by the continuing changes in business conditions. As the country becomes more densely settled and industrial development continues, there will be need for a gradual permanent expansion of currency which will be met partly by increase in actual metal, but largely by the increase in other forms of currency. Beside such permanent increase, there will be the seasonal expansion and contraction which appears in the statistics of the central banks of all the larger countries. These seasonal changes do not coincide in the various countries. In countries with little agriculture, which are, therefore, compelled to import most of their raw materials, the time of largest expansion is apt to fall at a different time of the year from that in countries which are solely or very largely agricultural. We are in a transition period and what is true to-day may not be true a few decades hence. At present, however, our period of largest expansion is likely to be at crop-moving time, with contraction taking place after the operations connected with the movement of the crops have been completed.

Probably for the present, the experiences of Canada are most likely to furnish us an example. Canada's banking system is centered in a group of so-called chartered banks, of which there were twenty-four in 1914 and only eighteen in 1920. These banks have over four thousand branches throughout the Dominion, providing for its commercial needs and, in addition, serving as the chief savings institutions of the country. They are subject to comparatively little governmental supervision, although the Canadian Bankers' Association is a public institution whose secretary-treasurer has supervisory power over note issues. The banks are required to

make a monthly report of their condition to the minister of finance.

Canada's currency consists for the most part of bank notes. The banks are authorized by law to issue notes up to the amount of their paid-up unimpaired capital plus any amount they may have on deposit in the central gold reserve. In addition to that, during the crop-moving season they are permitted to issue additional notes up to 15 per cent of their capital and surplus combined, but this additional circulation bears interest at 5 per cent. The privilege of issuing additional circulation may be extended to cover the entire year, and, as a matter of fact, has been so extended during recent years. The chartered banks are not required to carry any special reserves against their circulation, except that they must deposit with the minister of finance, gold or Dominion notes up to 5 per cent of their average circulation. These deposits constitute the bank-note redemption fund. The principal security against circulation, however, is found in the fact that the notes are a first lien on the banks' total assets and in the further fact that the stockholders are subject to double liability on the notes. Bank notes are legal tender throughout the Dominion. It is to the interest of each bank to maintain as high a circulation of its own notes as the law permits. Each bank will, therefore, pay its customers over its counter only notes issued by itself. When the community's need for circulation contracts, notes will be deposited in the banks and the banks will return to the issuing banks the notes in their possession, and thus reduce the outstanding volume of circulation. In other words, since the notes are obtainable from any bank on demand and on the other hand can always be deposited with the banks as soon as they are not needed, the circulation in the hands of the public does not exceed the requirements of trade and industry.⁴

The Canadian statistics for the years immediately preceding the War and those since the War are given in next column.

⁴*Federal Reserve Bulletin*. December 1919. p. 1142.

CIRCULATION OF BANK NOTES IN CANADA

	1911	1912	1913	1919	1920	1921
January.....	77,110,971	88,065,521	94,575,644	226,385,506	237,269,805	229,608,213
February.....	79,927,785	88,920,598	97,206,713	210,894,809	223,979,666	211,640,296
March.....	81,938,753	93,819,353	102,202,047	216,529,576	231,220,770	215,931,035
April.....	83,647,088	95,143,371	98,100,111	223,763,426	243,226,193	216,262,907
May.....	81,862,218	93,819,353	102,997,986	219,287,788	235,083,179	207,359,887
June.....	88,618,699	102,011,848	105,697,629	222,712,991	238,088,555	207,056,687
July.....	89,018,079	95,827,554	99,143,411	223,662,648	240,833,686	203,134,777
August.....	90,630,530	101,501,270	103,806,914	223,454,556	237,697,047	197,461,372
September.....	97,197,176	104,334,287	111,075,519	229,532,356	242,988,866	.....
October.....	105,855,021	110,696,877	118,234,359	242,509,573	252,892,760	.....
November.....	101,943,056	115,497,998	119,497,321	248,073,385	253,576,534	.....
December.....	102,037,305	110,048,357	108,646,425	247,611,079	246,859,667	.....

It will be noticed that the circulation increases very largely in the last months of each year and decreases at the beginning of the year. This has been true even since the War, in spite of the fact that Canada has had a period of inflation similar to our own. It is also interesting to note in this table that naturally there has been a very large increase of bank notes since the War, and that the contraction which has taken place has by no means been sufficient to bring the total back to that of the pre-war period. Probably this is due in Canada, as in our own country, to the fact that part of the apparent inflation is really a natural expansion due to general commercial development within the country.

In the case of the European countries, on the other hand, the inflation has been much more severe, culminating in Austria Hungary, where the note issues of the central banks increased twenty-fold. Everywhere the elasticity of the currency provided by central banking institutions has prevented the most severe financial panics, though, of course, nowhere could it prevent commercial crises due to the general situation.

PROPER POLICY AS TO REDISCOUNT RATES

To summarize: Bankers have had too little experience to state definitely how the expansion and contraction of the currency under the Federal Reserve System is going to work under normal conditions. The unusual stress to which the Federal Reserve System was subjected at the very outset must make bankers and business men everywhere realize that the System, if properly managed and kept free from politics, ought to have no difficulty whatsoever in functioning satisfacto-

rily during normal and less trying years. It will be necessary, however, for the Federal Reserve Banks to educate the bankers of the country gradually to a conception that the Federal Reserve Banks are to be regarded strictly, as their name implies, as a last resort, and that the rediscount privileges are to be used, therefore, sparingly and only in times of stress and strain. There is a danger that, owing to the peculiar conditions under which the System began, its reserve function may have been forgotten. If the Federal Reserve Banks will have the courage to keep the rediscount rates above the prevailing market rate, banks and bankers will gradually learn to make use of their rediscount privileges only in case of real necessity.

This may cut down the large profits which the Federal Reserve Banks have earned in recent years but, after all, the reason for the establishment of these banks was not to earn money either for themselves or for the government, but to prevent losses to the business and banking communities of the country. Every true well-wisher of the Federal Reserve System will desire that in course of time it limit itself to the purposes for which it was created, that it may be kept out of politics, and that it may not be used as a panacea for all financial evils threatening the country as a whole, or any class or section thereof. Its real, primary and sole function is, and ought to be, to provide an elastic currency which may prevent unnecessary financial panics of which we have experienced too many in the past. As one who had much to do with the discussions preceding its creation and who acted as a fatherly adviser during the years of its infancy, the writer expresses the wish: *vivat, crescat, floreat.*

Expansion and Contraction from the Federal Reserve Standpoint

By JOHN H. RICH

Chairman and Federal Reserve Agent, Federal Reserve Bank of Minneapolis

IF kept clearly in mind, several facts will aid in an understanding of the problems which the Federal Reserve Banks have encountered in attempting to exercise an appropriate and scientific control over the expansion and contraction of both currency and credit. The United States is a country of immense extent, of the greatest diversity in its stages of development, in production and in the local availability of capital and investment funds. It is a comparatively new country and in the less developed sections banking is more of a business than a profession. As a nation we lack the beneficial influences of custom, precedent and the fruits of ancient experience. Instead of a homogeneous population, we have invited racial elements from every part of the earth, who have brought with them their own peculiar ideas and customs, all of which must be recognized from the standpoint of practical banking, and all of which tend to exert influences that retard the adoption of uniform practices and scientific banking methods. Bank management is of as diverse a character as the primary interests of the various states, and, broadly

speaking, is a matter of adaptability to circumstances rather than the product of careful observance of economic law, sound financial principles and scientific methods. This thought might be summarized in the statement that banking is in a highly evolutionary condition in the United States, and that for the past ten years the period has been a transition from a rather archaic and outworn banking system to a modern and scientific mechanism, somewhat broader than banking itself, that will eventually provide the United States with the efficient system for banking, exchange and credit control which it needs as its equipment for a proper participation in the financial activities of the world.

POWERS OF RESERVE SYSTEM LIMITED

In the nature of things, the Federal Reserve System is not all-inclusive. The System embraces in it only the national banks of the United States, although the Federal Reserve Act also extends liberal privileges to the much more numerous state banks and trust companies. In membership,¹ the Federal Reserve System embraces 9,745

¹ U. S. Bank Figures—June 30, 1921.

	Total ^a	In F. R. Sys. ^b	Per Cent Total	Out of F. R. Sys.	Per Cent Total
No. of Banks.....	30,815	9,745	31.6	21,070	68.4
Capital.....	\$2,904,511,000	\$1,858,710,000	63.9	\$1,045,801,000	36.1
Sur. & Undiv. Pf.....	3,454,639,000	2,273,795,000	65.8	1,180,844,000	34.2
Total Resource.....	49,688,839,000	30,883,023,000	62.2	18,805,816,000	37.8
Loans & Dis. & Redis....	28,944,708,000	18,551,120,000	64.2	10,393,588,000	35.8
Investments.....	11,384,334,000	6,104,655,000	53.6	5,279,679,000	46.4
Bal. due from banks....	4,795,387,000	2,978,276,000	62.1	1,817,111,000	37.9
Individual deposits....	35,472,563,000	19,658,809,000	55.4	15,813,754,000	44.6
Nts. & Bills redis.....	1,271,684,000	1,243,764,000	97.8	27,920,000	2.2
Bills payable.....	1,376,891,000	812,241,000	59.0	564,650,000	41.0

^a Comptroller of Currency's Press Statement, October 31, 1921.

^b Federal Reserve Board Report, June 30, 1921.

institutions out of 30,815 in this country, or 31.6 per cent. It includes 63.9 per cent of the banking capital of the United States; 65.8 per cent of the surplus and undivided profits, and it comprehends 62.2 per cent of the total resources, and was carrying on June 30 of the present year, 64.2 per cent of the loans and discounts, including rediscounts, of the country. It then held a little more than half of the individual deposits of the United States. With two-thirds of the membership and more than one-third of the resources of the banks of the country outside of the system, it is obviously impossible to expect it to exercise any complete control over expansion and contraction of credit. Its power over currency expansion and contraction is limited, due to the competition of other forms of money than Federal Reserve and Federal Reserve Bank notes.²

The rather powerful influence which the Federal Reserve System exercised during the war period, particularly since the radical advances in commodity prices, was fortuitous and due largely to the fact that under the country's pressing need for a sharply increased volume of currency with which to handle its current exchanges, its previously existing and rather inflexible issues were submerged to the extent that the overburden of Federal Reserve notes and Federal Reserve Bank notes became the dominating factor in the currency situation. This

was due to the quick responsiveness of these notes to any demands for issue and the fact that they cannot be kept in circulation except in response to demand.

Another factor of great importance in connection with the whole question of expansion and contraction relates to the actual degree of power which the Federal Reserve System is able to exercise over its membership. Its powers are specifically indicated in the law³ and are in the main of a general and supervisory character. The law seems to indicate quite clearly what specific rights a member in the Federal Reserve System enjoys, but limits in quite a distinct way the power and control over members to be exercised either by the Federal Reserve Banks or the Federal Reserve Board. In a certain sense and considering the subject purely from a practical standpoint, the real powers of a Federal Reserve Bank over its members are indirect and rise out of its contact and association with members at times when they are borrowing. It is difficult to see what very practical powers a Federal Reserve Bank might exercise over the non-borrowing element in its membership. Every Federal Reserve Bank has had such an element of rather substantial proportions throughout the war period. It is authorized to insist that its members maintain their capital stock at the figures fixed by law, that they carry unimpaired reserves and that they make appropriate periodic reports. It is divested of any power to control the policies or loan operations of members and has no authority whatsoever over the rates charged by a member to its customers.

It naturally has no powers of any

² The Secretary of the Treasury's Circulation Statement of October 1, 1921 shows gold coin and bullion, \$903,163,000; gold certificates, \$514,901,000; silver dollars, \$75,388,000; silver certificates, \$226,610,000; subsidiary silver, \$261,602,000; treasury notes of 1890, \$1,562,000; United States notes, \$341,613,000; national bank notes, \$728,314,000; or a total of \$3,053,153,000 as compared with \$2,518,963,000 of Federal Reserve notes and \$119,163,000 of Federal Reserve Bank notes, or a total of \$2,638,126,000 of Federal Reserve issues.

³ See Section 13 of the Federal Reserve Act. Powers of Federal Reserve Banks—Section 11. Powers of the Federal Reserve Board—Section 4. Corporate powers of Federal Reserve Banks.

character over the numerous non-member banks, except that through wise leadership it may inspire the desire to conform to sound policies. In a period of inflation the rapid expansion of member banks' loans and discounts becomes a matter of first importance. Over such a rising tide of borrowings the power of a Federal Reserve Bank is limited. It can restrict, or, for cause, it might refuse the application of a member to rediscount; but its ability to control is largely centered in its position as an adviser in which it would employ the facts developed by its examiners and endeavor to create a clear understanding of all the factors which the situation might involve. In this capacity its value would be largely through wise suggestion and guidance.

There is therefore some question as to the degree of power to control which the Federal Reserve System has over even its own membership. Its real power, which cannot be denied, lies not in legal authorization or specific grant of regulatory authority, but in the confidence it can inspire because of sound leadership and the value it can give to membership because of the business advantages flowing therefrom. An important degree of voluntary coöperation has existed and extends far beyond the confines of its own membership, due to the enlightened self-interest of progressive institutions. It might be said that in a sense the Federal Reserve System, while it is an efficient organization, is more like a voluntary federation of common interests for their own good.

CURRENCY EXPANSION AND CONTRACTION

Not a great deal need be said of currency expansion and contraction as it relates to Federal Reserve issues. The mechanism by which this is accom-

plished is clearly stated in the law⁴ under which each Federal Reserve agent in each Federal Reserve Bank, with the approval of the Federal Reserve Board, is authorized to draw from the Comptroller of the Currency and issue to his Federal Reserve Bank on the presentation of gold and proper collateral, Federal Reserve notes for issue to member banks. Upon the application of a member bank in good standing, accompanied by a tender of eligible paper for rediscount and credit, the Federal Reserve Bank in practice immediately delivers Federal Reserve and Federal Reserve Bank notes in such amounts as may be requested. The process of issue is therefore as nearly automatic as may be, and is properly founded upon the assumption that member banks will not request Federal Reserve issues unless they need them and that the necessities of their communities will rule.

Once issued, the Federal Reserve note moves through the member bank into the hands of the public and when it is no longer needed will find its way back into a bank. Banks which have accumulated more currency than they have use for, will remit to their correspondents or to their Federal Reserve Bank direct. The correspondents are largely members of the Federal Reserve System and the remittance of their excess accumulations is a matter of daily routine. Upon receipt by a Federal Reserve Bank, returned notes are sorted and under the law must be shipped at once for credit to the bank of issue. The particular Federal Reserve Bank has therefore no right of reissue except as to its own notes. Those consigned to other Federal Reserve Banks will reissue or not as the demand of that Federal Reserve District may indicate. If they do not re-

⁴ Federal Reserve Act, Section 16. Note Issues.

issue, they are ordinarily returned for credit to the Federal Reserve agent or if worn and unfit find their way to early redemption and destruction. If fit, they are stored against the next period of demand. The method of retirement and redemption is therefore quite as automatic, although somewhat slower in process, than the method of issue. There can be no question but that the mechanism instituted under the Federal Reserve Act to create flexibility of currency expansion and contraction has operated with entire success, and that Federal Reserve notes possess these highly desirable qualities which were lacking in other currency issues of this government and in national bank notes.

The course of Federal Reserve note issues since late in 1920 has been downward. They reached their peak in November, when the aggregate issue was \$3,349,000,000, and by October 1, 1921, declined to \$2,518,963,000. This recession of \$830,496,000 was as significant of the power of contraction inherent in Federal Reserve notes, as was the earlier rise indicative of their responsiveness to the issue demand.

In due time Federal Reserve Bank notes amounting to \$119,163,000 will be retired. At a later date under provisions of the law, national bank notes (on October 1, 1921, amounting to \$728,314,000) will likewise disappear from circulation. Treasury notes of 1890 are a small factor and their gradual retirement has been provided for by law. There will remain \$341,613,000 of United States notes for which no retirement provision is included in the law, and the gold and silver certificates. It is therefore probable that with the gradual fall in Federal Reserve issues there will also be a gradual drift toward the elimination of competing factors in the circulation, with the ultimate result that Federal Reserve notes will

control and currency will at last be upon a strictly flexible basis and will have the scientific basis which was contemplated in drafting the Federal Reserve Act.

The course of Federal Reserve note circulation in connection with the price movement during 1920 was very interesting. United States wholesale prices, based on the percentage of 1913 average prices,⁵ reached their high point of 264 in May of that year. United States retail prices, based on the percentage of 1914 average prices,⁶ held during June and July, 1920, at their high point of 215. The high point of Federal Reserve issues was reached during the last week of October⁷ and the first week of November, or sixty days later than the peak of retail prices and since that time have steadily declined. The comparative curves tend to prove the accuracy of the view that currency expansion was the product and not the cause of price inflation and that currency contraction (Federal Reserve issues being the only issues having a real flexibility) was the natural product of the downward turn in prices. In paying cash for wheat at country elevators, it obviously takes more currency to buy wheat at the high point of more than three dollars than at the current price of about one dollar. In the agricultural districts the natural result is that member banks will request Federal Reserve notes in larger volumes during periods of rising prices and that their use for currency will fall off sharply on a declining market.

An important element in maintaining the flexibility and responsiveness of Federal Reserve issues to influences that tend to expand or contract them, is the fact that in current rediscounting

⁵ Federal Reserve Board's Price Index.

⁶ United States Bureau of Labor Statistics.

⁷ See Footnote reference on page 178.

operations the larger part of Federal Reserve membership wants credit and not notes. Its demand for notes is wholly the product of local conditions and there is no occasion to request currency shipments unless the local currency supply is insufficient. Credit at the Federal Reserve Bank is more adaptable to its ordinary needs.

It may therefore be said that currency issues from the standpoint of the Federal Reserve Bank occasion practically no concern. They increase or diminish as the fluctuating conditions of each business day may indicate and their connection with such conditions is of the most intimate character. The rise and fall of Federal Reserve issues is so nearly automatic that it requires no extraneous suggestions or encouragement.

CREDIT EXPANSION AND CONTRACTION

The currency provisions of the Federal Reserve Act have proved a distinct achievement in financial legislation. The expansion and contraction of credit is not so simple a problem. In considering it from a Federal Reserve standpoint the membership figures of the System become in some respects more significant than other items of the consolidated bank statement of the country. Less than one-third of the country's banks are in direct contact with the twelve Federal Reserve Banks. Even this one-third may not be assumed to have continuous contact, since even during the recent period of very severe credit strain it has continuously included a substantial non-borrowing element with which the con-

⁷ Trend of Wholesale and Retail Prices and Bills Discounted by Federal Reserve System and Federal Reserve Notes in circulation January, 1920 to September, 1921.

	<i>U. S. Wholesale Prices Per Cent of 1913 Average Price (Federal Reserve Board)</i>	<i>U. S. Retail Prices Per Cent of 1914 Average Price (U. S. Bureau of Labor Statistics)</i>	<i>Bills Discounted By Whole F. R. System on Last Reported Date in Month (000's Omitted)</i>	<i>Federal Reserve Notes in Actual Circulation Whole F. R. System on Last Reported Date in Month (000's Omitted)</i>
1920				
January.....	242		\$2,174,357	\$2,850,944
February.....	242		2,453,511	3,019,984
March.....	248	196	2,449,230	3,048,039
April.....	263	207	2,535,071	3,074,555
May.....	264	211	2,519,431	3,107,021
June.....	258	215	2,431,794	3,116,718
July.....	250	215	2,491,630	3,120,138
August.....	234	203	2,667,127	3,203,637
September.....	226	199	2,704,464	3,279,996
October.....	208	194	2,801,297	3,351,303
November.....	190	189	2,735,400	3,325,538
December.....	171	175	2,719,134	3,344,686
1921				
January.....	163	169	\$2,456,475	\$3,090,748
February.....	154	155	2,396,254	3,051,706
March.....	150	153	2,286,648	2,930,729
April.....	143	149	2,063,739	2,830,118
May.....	142	142	1,870,256	2,734,804
June.....	139	141	1,771,562	2,634,475
July.....	141	145	1,650,496	2,537,617
August.....	143	152	1,491,935	2,481,466
September.....			1,402,903	2,457,196

tact of the Federal Reserve Bank was of a limited and oftentimes of quite an indirect character. In this situation probably lies the seeds of the failure of the theory that a fluctuating rediscount rate is an engine for credit control.

Obviously Federal Reserve rediscount rates can control, if at all, only such banks as pay them, and such banks may not confine their borrowings to the Federal Reserve—in fact they seldom do. The influence of the rediscount rate must be of an indirect, and probably of a very tenuous character as to all non-borrowing banks, member or non-member alike. In most of the Federal Reserve Banks there has been some disappointment at the doubtful effectiveness of the rediscount rate in periods of rapid expansion of credit. To the man whose mind is fastened upon a prospective profit it is altogether improbable that an upward revision of one-half of 1 per cent in a rediscount rate which he does not pay directly, will tend to curb him or moderate his activities. Over the agricultural portion of the United States the bank rate of interest is as near to a stable rate as any example that the United States affords. In developed agricultural sections the tendency of the bank rate is to remain at practically the same level throughout the year, and, for that matter, over a period of years. The same tendency is noticeable in the less developed agricultural sections, although the rate levels are higher, and even where bank rates reach their highest levels the rate itself is subject to comparatively little change.

Where there are surplus capital and funds for investment, it is natural that the importance of agriculture should be recognized and that ample funds should translate themselves into fairly stable and relatively low rates to agricultural borrowers. The reverse, how-

ever, is not true. In the partially developed sections of the West it has been the habitual practice to attract outside funds by offering attractive rates on time deposits, which, once established, have automatically forced up the loan rate of the bank to its customers. Rates on time money change very little in western United States and they, more than any other factor, dominate and control the rate which must be charged to the borrower if the bank is to make a profit.

It would appear that the only points where the interest rate shows a proper responsiveness to the rise and fall of free funds is at the commercial centers or in the sections which have attained their development. In the very large western areas it has been noticeably true that the rate to the farmer and stock raiser has changed but little throughout the entire war period including the last twenty-two months of very severe strain on credit. This applies particularly to the best names. The availability of credit fluctuates more than the rate. Such a condition has not prevailed at the centers where the rate even to the best names has fluctuated in accordance with a changing money market. These were conditions which the Federal Reserve Banks were not called upon to encounter until after the war period of artificial prosperity had largely spent itself. It then became apparent that they entailed very serious problems, the gravest of which did not develop until the sharp fall in prices began to cause cancellations and extraordinary inventory losses, and to impair the credit standing of many responsible firms. In the stock-growing districts the market for wool collapsed. Live stock prices receded sharply. In the agricultural sections farmers who anticipated a continuance of the extremely profitable price levels saw corn drop to

a point where it was more profitable to burn it than buy coal; and wheat went down to a third of its high war price.

RESERVE BANK POLICY DURING BUSINESS CONTRACTION

If every merchant and farmer caught in the jaws of this distressing situation had been improvident, lacking in foresight and not entitled to bank support and bank credit, the problem might have been easier. It would then have been simple to say that Mr. Smith and Mr. Jones had reaped the fruits of their own errors and to have permitted them to take the usual course through bankruptcy. The conditions, however, were somewhat different. While a certain amount of recklessness, extravagance and failure to consider the future, doubtless existed, price changes were so radical as suddenly to cripple and often seriously to embarrass, entirely worthy and reputable commercial, industrial and agricultural interests. It was necessary in such cases that the banks show no hesitancy in supporting every worthy borrower to the full extent of their power.

It is an interesting fact that this power to help was, to an extraordinary extent, based upon the power of the Federal Reserve System to extend credit. Access to the Federal Reserve Banks was a right enjoyed, under specific provisions of the law, by every member bank. There was, however, no legal bar to loans by city correspondents to non-member country banks, and the immediate result was that the very heavy rediscounting of banks at the centers was translated into equally heavy loans to non-member institutions at widely scattered points, irrespective of the provision of the Federal Reserve Act that denies the use of the credit facilities of the Federal Reserve System to non-members. There is no question but that

the financial and business judgment of the country will strongly support the policies pursued by the Federal Reserve Banks when they are properly understood. A narrow or hidebound interpretation of the law, irrespective of the very great physical difficulties which must be encountered in any effort to trace the movement of the proceeds of rediscounts through a large city institution, would immediately have meant the failure of many hundreds of state institutions, a large proportion of which were, under the Federal Reserve Act, ineligible for membership because of insufficient capital. The strain upon the Federal Reserve System was severe enough and there could have been no justification for inviting the crisis which would have been precipitated had the very numerous non-member banks lacked a place to go to borrow.

What happened during the year ending April 28, 1921, is very interestingly shown in a chart prepared under the direction of Mr. Benjamin Strong, Governor of the Federal Reserve Bank of New York. Classifying all the members in the Federal Reserve System by their location in agricultural, semi-agricultural, and non-agricultural counties, we find that during this period the aggregate deposits of banks in non-agricultural counties fell off 4 per cent. In semi-agricultural counties the decrease was 5 per cent; but in the agricultural counties the decrease was 11 per cent. As to their aggregate loans, the decrease in non-agricultural counties was .6 per cent, and in semi-agricultural and wholly agricultural counties the decrease was in each case, 1 per cent. In their aggregate borrowings from Federal Reserve banks, non-agricultural counties fell off 29 per cent, while semi-agricultural counties receded only 2 per cent and wholly agricultural counties increased their borrowings 57 per cent. In aggregate

borrowings from other sources than the Federal Reserve System, the non-agricultural counties increased 1 per cent; the semi-agricultural counties, 19 per cent and the agricultural counties, 66 per cent. It therefore appears that agriculture, in which is included live stock, drew down its deposits, failed to decrease its loans, and in both cases made extraordinary increases in its borrowings.

A situation such as this was sure to produce peculiar problems in a Federal Reserve Bank. Let us suppose that in one of these agricultural sections a member bank had already increased its loans and discounts to the limit of safety while carrying reasonable rediscounts with its Federal Reserve Bank and substantial bills payable with correspondents. The long delayed liquidation in its territory fails to develop. Its farmer customers, perhaps five or six hundred in number, are man and man alike obliged to pay their debts contracted on a basis of high wheat and high corn, with wheat and corn having an abnormally shrunken market. Obviously the bank would fail in its responsibility to its community if it arbitrarily refused loans and forced payment. The facts were that in very numerous cases the enforcement of payment was practically an impossibility, since the crops lacked liquidating power. The Federal Reserve Bank's problem, therefore, became broader than that of the bank itself. It became a problem of carrying through the farmers or business men until they could again find a safe footing.

In some sections of the West it was necessary to continue this policy through four successive failures of the crop. The bank's alternative was to loan the minimum that was necessary to enable its customers to weather the storm or encounter a prompt insol-

veney. Within a very brief period fifty-three banks in a certain western state, and numerous banks in the South and in other portions of the country, mainly in districts that are agricultural, went to the wall. In such an emergency it is fruitless to rely upon the fluctuations of a discount rate. An increase of 1 per cent would not deter a bank in very grave difficulties from presenting eligible paper for rediscount at a Federal Reserve Bank. There can be no question of the legal right of a member in the Federal Reserve System to present eligible paper for rediscount. Upon the presentation of such paper the problem becomes one for the executive committee and executive officers to solve. They must determine whether in view of all the facts and circumstances the rediscount of particular applications is justifiable. I have indicated that during the recent abnormal period the justification of rediscount did not necessarily depend wholly upon the credit standing of the applicant or upon the character of the paper presented. Because of these conditions, which nullify the effect of discount rate changes, it is frequently necessary to carry a bank beyond what would ordinarily be considered safe or prudent limits in order to protect its depositors and its community and maintain the stability of the general banking situation. This has been particularly true where loans were "frozen" and slow rather than doubtful.

With a clean and reputable member under capable management in acute distress and faced with the alternative of obtaining additional assistance or closing its doors, there can be no question as to what the policy of the Federal Reserve Bank should be. It is better to save the reputable banks, assist their worthy customers, whether business men or farmers, to weather the storm, and hope for rehabilitation later, than

to take a narrow view and force the bank to the wall, unsettle public confidence and perhaps precipitate again such conditions as were a quite familiar experience prior to the establishment of the Federal Reserve System.

THE REDISCOUNT RATE AS CREDIT REGULATOR

Any discussion of credit control at the present time is necessarily colored by recent experiences and may perhaps have a less practical value because of the abnormal nature of the period from the beginning of 1920 down to date. Such a period does, however, carry its own lessons. One of the most important is that dependence upon the discount rate is a fallacy until the discount rate can be made generally applicable to the borrowings of all banking institutions in the country. Pending such development the real control of credit in the Federal Reserve System will lie not in the rate but in the accuracy and precision of judgment of the boards of directors, executive committees and executive officers in each of the Federal Reserve Banks, with the able leadership and excellent advice which they have unfailingly received from the Federal Reserve Board.

To the borrowing individual or borrowing bank, such strain and emergency destroy the effectiveness of control through the rediscount rate. The question then becomes one of expediency and safety and not one involving scientific application of a theory, which, while it works well in smaller and better developed nations, will have a doubtful practicability in the United States until it reaches equal development and has an equally well-knit population, properly seasoned by precedent, custom and established rule.

On the other hand, it cannot be doubted that the existence of a discount rate has been an influence of ex-

ceptional value. Some of the critics of its result in operation have apparently overlooked the fact that the Federal Reserve System during the period of the War was necessarily dominated by Treasury policies, and that it did not have an opportunity to work out a discount rate policy of its own. Within a very recent period a certain group of eastern banks encountering relatively the same conditions have gone to a flat $4\frac{1}{2}$ per cent basis. A second group of banks, between the better developed East and the partially developed West, but having much the same problems to meet, have adopted a 5 per cent basis. The remaining banks in the undeveloped sections have gone to a $5\frac{1}{2}$ per cent basis. We have therefore in the Federal Reserve System, for the first time, what is practically a uniform policy in the fixing of rediscount rates, and the new rates are as uniform as may be as to the districts where conditions are similar.

Under normal conditions there should be a differential between the developed East and the undeveloped West. Such a differential cannot always exist because it will be affected temporarily by stress and unusual developments in the money market. It has the merit of affording guideposts by which the 30,000 banks in the United States may judge country-wide credit conditions, and while their freedom and independence in making rates to their customers is in no wise impaired, it will unquestionably prove that Federal Reserve discount rates which maintain the proper relation between the different areas of the United States and which keep reasonably in line with their upward or downward movement, will have a very material indirect influence. They will probably tend in the long run to equalize bank rates in sections where conditions are similar and to prevent abnormal differ-

ences in the customers' rate in different sections of the country.

From a practical standpoint the control of credit is largely a matter of leadership and example. It is becoming clear that each rediscount application in a Federal Reserve Bank must receive a high degree of individual study and that there must be devoted to it a specialized judgment which takes full cognizance of all the facts surrounding it. In western Reserve Banks, at least, it is improbable that the conditions of any two borrowing banks will prove to be exactly parallel. These differences must be recognized and as they develop they call for keen banking judgment rather than the application of a rule. In the last analysis the control of credit through the Federal Reserve System is, therefore, a matter for the executive officers and executive committee in each individual case. They must set up their own policies, form their own judgments, and endeavor to hold all applications from borrowers to proper standards, which if they are to be valuable must not be inflexible. From an intimate viewpoint it is clear that the success

the Federal Reserve Banks have had in enabling this country to avoid disaster, while not complete, was still extraordinary and that it had its foundations not in any question of rate control but in the application of shrewd and precise judgment to many thousands of separate and distinct problems.

In checking expansion, the promptness and courage of the Federal Reserve Banks in taking a stiff stand against inflation is likely to prove more efficacious than any decision to advance the rate, although both actions must go hand in hand. In reality it might be said that an advancing or receding discount rate is of material advantage as a warning signal but that the practical work of the Federal Reserve Bank is in its executive committee and that the degree of control which it exercises, which is necessarily limited by the insufficiency of its membership, will be proportionate to the farsighted vision and courage of the Federal Reserve Board, which supervises, and the executive control in each Federal Reserve Bank, to which each problem must ultimately come for settlement.

Principles Governing the Discount Rate¹

By W. P. G. HARDING

Governor of the Federal Reserve Board

CONTROL over discount rates, as exercised by the Federal Reserve Banks and the Federal Reserve Board, is one of the most important and far-

¹ Remarks at the opening session of the joint conference of the Federal Reserve Board with the Federal Reserve Agents and Governors of Federal Reserve Banks held at Washington, D. C., October 25-28, 1921.

Because of his official position, Governor Harding did not feel at liberty to express a personal opinion. In this paper, however, he states the problem as it has been brought before Federal Reserve authorities.

reaching powers ever delegated by Congress to another instrumentality. The grant ranks with the power given the Interstate Commerce Commission to regulate railroad rates. While it is necessary that powers of this kind should be vested in a few hands, they should be used with discretion and the effect of a change in rate should be carefully considered before the change is made.

The principle is well established that in theory the Federal Reserve

Bank discount rate should be slightly in excess of current rates. There has been much discussion of the reductions which have been made in discount rates during the last six months and, disregarding the opinions of the prejudiced and the uninformed, let us consider the conflicting views of some whose opinions are worthy of attention and respect.²

VIEWS ON REDISCOUNT RATES

A New York banker and an eastern economist expressed themselves as follows:

The basic idea in this policy of keeping the rediscount rate above the market is that Reserve Bank money is for exceptional and unusual use—that it is not the province of a Reserve Bank to supply a substantial part of the ordinary funds employed in the market in ordinary times. Of course, it is expected that a Reserve Bank shall make money for its stockholders and shall employ such of its funds as may be necessary to meet expenses and to pay dividends. One provision of the Federal Reserve Act, permitting open market operations on the part of the Federal Reserve Banks, was designed to give them discretion in this matter, whether the member banks should rediscount with them or not. But the position of a Reserve Bank is a very peculiar one. If an ordinary bank makes a loan, checks come in against it, as a consequence of the loan, which it must meet out of its reserve unless it should happen that, simultaneously, new deposits are made with it of checks drawn on other banks. Loans made by a Reserve Bank, however, need not lead to drains on its reserve. When, in making a loan, it issues its notes or gives a deposit credit to a rediscounting bank, that note or a transfer of that deposit credit will be accepted as ultimate payment by some other institution. The deposit liabilities of the Reserve Bank count as ultimate reserve for the other banks of the country,

and the volume of reserve money is consequently increased through a mere increase in the deposit liabilities of the Reserve Bank. With an increase in the volume of reserves of the member banks, there is an immediate tendency to a reduction in the general level of discount rates throughout the country, placing them below the level which open market conditions would otherwise call for and creating a temptation for the uneconomical use of bank funds. There is particularly a temptation to use bank funds in an excessive degree for capital purposes, and for the ordinary banks of the country, misled by the artificial excess of liquid cash, to tie up too great a part of their assets in non-liquid form. The Reserve Bank which makes rediscount rates too low, therefore, instead of performing its function of increasing the liquidity of the banking system, tends rather to destroy liquidity.

A Chicago banker reiterates the opinion, expressed by him several times, that the Federal Reserve Banks and the Federal Reserve Board ought to proceed very slowly in lowering the present rates. He anticipates that there is considerable danger, in case the rates are lowered precipitately, of a renewed inflation, with a consequent reaction more violent than that through which we are now passing. He takes the view that, in general, it is a complete mistake to have the rediscount rates lower than the prevailing market rates for commercial loans, for if banks are enabled to rediscount their paper at a lower rate than they themselves receive, obviously a continued inflation is profitable to them. His opinion coincides with the views of the eastern banker and the economist above quoted, and he stresses the point that our large gold reserve is, after all, due only to the fact that gold is not being circulated at the present moment and that much of this gold is likely to flow out of the country as soon as there is a change in the bal-

² The quotations which follow are from a symposium recently published in a financial journal.

ances of trade. He concurs, also, in the view that a certain amount of the gold which the Federal Reserve Banks have at present is, in a sense, merely held in trust for Europe. He regards as entirely fallacious the argument made by adherents of a policy of lowering rediscount rates that such action is desirable because the reserve ratio and gold accumulations of the Federal Reserve Banks justify a relaxation of the official rates.

A Milwaukee banker who contends that the policy should be in accord with the money market tendency, states:

The main point made by those opposed to the lowering of Federal Reserve discount rates is that the rediscount rate should always be above the market rate. This is laid down as a general principle to which there are no exceptions. Federal Reserve funds are only emergency funds, it is said, and it should not be possible for banks to make a profit by rediscounting at a lower rate than the market.

When the demand for credit is excessive and increasing, the Reserve Banks should move into a dominating position by raising their rates above the market rates for money. But the same necessity for discouraging resort to Federal Reserve Banks does not exist when the demand for credit slows down, loans are being paid off and reserves are accumulating. What has happened as a result of the recent lowering of rediscount rates? Has it resulted in an expansion of loans or reflation? Not at all. On the other hand, the published records show that member banks have continued to reduce their rediscounts and borrowings and to do this have brought pressure upon their customers to liquidate. Customers who have voluntarily liquidated and got themselves back into good financial condition are offered lower rates on new loans. This, of course, is an incentive to those who have not done so to liquidate. This is the practical way in which the leadership of the Federal Reserve Banks in reducing their rates has worked. There has not been the slightest

tendency toward renewed inflation. Rather the tendency has been to further liquidation. . . . The general principle of keeping Federal Reserve rediscount rates above the market rate for money is sound, but it does admit of exceptions as in the present condition of things. The present Federal Reserve policy is in accord with the tendency of the money market and it is hard to see how it has had, or will have, any but a wholesome and constructive effect.

In a recent publication a well-known banker and economist has asserted that the best index of the money market in this country is the rate on line-of-credit loans to borrowers from two or more banks, and not the rate on bank acceptances, as in England. The volume of line-of-credit loans in this country is far larger than the volume of bank acceptance credits, but it may be doubted whether the rates on such loans are as competitive as bank acceptance rates. Bank acceptance rates are fixed in the open market and are published. Line-of-credit loans have no open market and there are no published rates. Line-of-credit loans are not as competitive as they may seem. A small firm commonly maintains a line of credit only at its own bank. Large corporations usually have lines of credit not only with their home banks but with large banks in financial centers, not necessarily because they can secure lower rates, but because no one bank wants to take care of their full needs. For these reasons it is to be doubted whether line-of-credit loans afford as good an index of money market tendencies as the bank acceptance rates. The latter represent the minimum rates for the best class of paper and, because this is so, they indicate far beyond their actual money volume the drift of the market. The present rate on eligible bank acceptances of $5\frac{1}{2}$ to 5 per cent is a better indication of what is taking place and what may be expected in the open money market than rates on line-of-credit loans which reflect market condition more slowly.

Another Chicago banker takes an extremely conservative view. He would like to see many of the so-called "war amendments" to the Federal

Reserve Act repealed and states that as the law stands, "nothing but the courage and wisdom of the management prevents it from becoming a disastrous engine of inflation." He objects particularly to the amendment which forces member banks to carry their entire lawful reserves in the form of collected balances with the Federal Reserve Banks and believes that this amendment, which he regards as practically demonetizing gold, is most dangerous in normal times. Referring to the complaints which have been made that the agricultural districts have been discriminated against, he believes that exactly the opposite is the case and appears to believe, also, that the Federal Reserve System has worked a great injury to the country as well as inestimable benefits. He states:

In a time of inflation such as we had a year ago, it nullifies the operation of the usual normal remedies for such conditions. If it had not been for the Federal Reserve Banks, farmers generally would have been compelled to sell their crops a year ago and pay their debts. This would have saved them and the country from the disaster that has overtaken them. Also, had it not been for the Federal Reserve Banks, manufacturers and merchants would have been unable to accumulate or carry the heavy inventories entailing losses in a single year which it will take a generation to replace.

The solution to this is to keep the Federal Reserve discount rates above current market rates, so that there will be no temptation on the part of the member banks to profiteer through the Federal Reserve Banks. So long as the Federal Reserve rates are kept below current rates, there is, in my judgment, no way in which this kind of inflation can be prevented. On the other hand, if borrowers compel their banks to rediscount in order to enable them to carry crops or goods for higher prices, they are put on notice that they are acting against the general judg-

ment. In normal times member banks should understand that they are not expected to borrow except to meet emergencies, and they should be made to feel that borrowing at such times is an indication of weakness and needs explanation.

He expresses the hope that the Federal Reserve Board will make a public statement of what its future policy will be regarding rates and expresses the belief that the confidence of the country in the Board is such that any clear statement of fundamental principles made by it would be acquiesced in.

Another New York banker while convinced that under normal conditions it is logical that the Federal Reserve rate should be higher than the prevailing commercial rate, believes that in view of the world-wide conditions that exist today, the adoption, at this time, of artificial means to accelerate the process of readjustment would be a dangerous course to pursue. He states:

Considering the extent to which credit for speculative purposes has been liquidated, and also taking into consideration the present reserve and gold position of the Reserve Banks, it would seem that the reduction in rate is fully justified. Furthermore, I do not believe the reduction at this time in the rate will appreciably encourage a tendency toward renewed credit inflation. The question of rates has, on the whole, been ably and courageously handled by the Federal Reserve Banks and the Federal Reserve Board.

He says that if he were to offer a critical observation, it would be to remark upon the "salutary modification of the need for deflation that would have resulted had the high rates been put into effect in the spring of 1919 instead of the summer of 1920."

A Boston banker takes the view that the Federal Reserve System was

organized for the purpose of furnishing credit, by means of rediscounting, to the commercial banks of the country. He says:

In a general way the time when this credit is needed is just before, during and immediately after, a credit crisis, or credit pinch, and it seems clear that at such time the rate charged for rediscounting should be at about the current market rate charged by the commercial banks to their customers. To make the rate higher than the prevailing rate would tend to restrict the granting of necessary credits to merchants and similar borrowers. To make the rediscount rate much lower than the prevailing rate would tend to encourage over-loaning by the commercial banks. In fixing the rediscount rates, the managers of the Federal Reserve Banks should try, as far as possible, to keep their minds free from influences other than those which directly concern the prevailing rates of money, but they certainly are justified, when fixing the rediscount rate, in being influenced by motives of the safety of the Federal Reserve Banks themselves, and when the rediscounts appear to be approaching a dangerous total, they should use their rate-fixing power to check speculation and to prevent any possible danger to the Federal Reserve Banks, which are the foundation of our whole banking system. It was never intended, and never should be intended, that the Federal Reserve Banks consciously use their power and authority either to encourage or to discourage business. Their chief purpose should be to assist commercial banks and to fix the rates of rediscount so as to best accomplish this, and at the same time to protect their own position from any possible overstrain.

He regards as one of the greatest dangers to which the Federal Reserve System can be subjected, the attacks and manoeuvrings of politicians to make the System serve political ends.

Another leading banker does not believe that the time has yet arrived when discount rates should be held up

to a point above the rates for commercial paper because the conditions of business are not yet on a normal basis. He says that it has been the habit of commercial bankers to argue with their commercial customers that the rate to their customers is based on the Federal Reserve Bank discount rate and that it should be enough higher than the discount rate so that there would be a profit to the banker between the discount rate and his rate to his customers. He says further:

There is yet in our banks a large amount of so-called frozen loans which may be described as loans which are probably good but which the borrowers are not in a position to pay off at the present time. Therefore, they are not in a position to trade on market rates on an even basis with the banker. Under these conditions, a high discount rate of the Federal Reserve Banks simply has helped the commercial banker to get higher rates from his customers than are justified by the conditions of credit. Therefore, it was desirable and necessary for the Federal Reserve Banks to reduce their discount rates from 6 or 7 per cent to $5\frac{1}{2}$ per cent in order to inform the commercial community that the credit situation no longer demanded these high rates.

He takes the view that "Federal Reserve Bank discount rates should not be made with the idea of controlling business or market prices of commodities," but that "they should be indications of the effect that the present business is having on the supply of credit and of anticipated conditions that will affect the supply of credit in the near future." He believes that "when the business community has become trained to the point of watching the reserve position and discount rates of the Federal Reserve Banks and has come to an understanding of what these figures mean, it will be helped very much

by studying the published conditions of the Federal Reserve Banks and will appreciate what a change in discount rates means, provided of course that the officers and directors of the Federal Reserve Banks are not hampered in using their judgment in these matters by outside influences."

A Chicago merchant notes the difference of opinion among experts as to the proper time for raising or lowering the Federal Reserve rediscount rates. He points out that neither the Federal Reserve System nor any part of it can be run on any formula, and that if it could, very little brains would be required for that part after the formula had been found. He believes:

If we are to be a world power in commerce, as we may be, we shall have to make the New York, or some other district rate attractive for the discount of the world's import and export bills. We might, of course, be above the English rate for a short time, for adjustment or other purposes, but if we make a rule to have the rate always above the commercial paper rate in New York, our ambition to be the world's bankers, or to compete with England in commerce and finance, will vanish into thin air.

He takes the view that in crises and extraordinary emergencies a Reserve Bank may well be justified in violating temporarily the ordinary canons of sound finance, but emphasizes the fact that under normal conditions and under conditions when it is possible to take a long-run view, the well established traditions covering a Reserve Bank's operations must be followed. The chief of these canons is that the rediscount rate of Reserve Banks should be kept above the market.

RECOMMENDATION OF ADVISORY COUNCIL

The Federal Advisory Council, at its last meeting on September 20, 1921, expressed its belief that rates should

bear a direct relation to a Federal Reserve Bank's reserve and to the general money market, and that, in addition, consideration should be given to the items enumerated in the Council's recommendation of May 17, 1921, as follows:

1. The reserves of the Federal Reserve System as a whole.

2. The reserve position of the Federal Reserve Bank whose rate it is contemplated to change.

3. The condition of all the banks of the country as a whole, and of the several Federal Reserve districts.

4. The economic and financial condition of this country.

5. World conditions, both economic and political.

6. The eventual establishment of a credit rate policy for the Federal Reserve Banks by which the rediscount rate to member banks is higher than the prevailing commercial rate, taking due consideration of the prevailing open-market rates for various classes of loans both in this country and abroad.

7. Uniformity of rates, while at times practicable and desirable, should not be adopted as a fixed policy, the System being predicated upon the principle that varying conditions might exist in different sections of the country.

With reference to the general money market, the following factors were suggested by the Board as those which should be considered in arriving at a conclusion as to what is the current rate for money:

1. Rates charged by banks to their regular customers.

2. Rates for one-name paper bought through note brokers.

3. Open market rates on bankers' acceptances.

4. Rates on Treasury certificates.

The Board asked the Council for its views as to the relative importance of each of these factors and the Council expressed the view that all four items

mentioned are important in determining the money market but there may be other factors which should likewise be given consideration, such as general business conditions and the reserve position of a Federal Reserve Bank. It was the view of the Council that the ruling rate for money in a district will adjust itself automatically to these conditions. The Council expressed the view, also, that a Federal Reserve Bank while it is borrowing should not lower its rate, but stated that special conditions might exist in a district which would make a reduction desirable and would justify such a course.

REDISCOUNT PROBLEM CONFRONTING THE BOARD

It seems clear to the Board that it is not practicable in this country for Federal Reserve Banks to maintain rates of discount higher than current market rates if line-of-credit loans are to be accepted as the criterion. The rates of interest permitted in many states are so high as to preclude this as a possibility. In ordinary circumstances when the credit risk is at a minimum the rates paid for high grade commercial paper sold in the open market may be regarded as a measure of the market rate for money, but it is evident that at present there is much consideration to be given to the basis on which short time obligations of the Treasury are sold and to market rates for prime bankers' acceptances. The problem, therefore, is more simple at this time in districts like New York, Chicago and Philadelphia, where the Federal Reserve

cities are dominant in their districts; but in other districts which cover a larger territory and where the business is more distributed and diversified, the problem is more difficult. At the present time, four Federal Reserve Banks are rediscounting about \$45,000,000 with three other Federal Reserve Banks. The directors of one of these borrowing banks more than a month ago voted to reduce their discount rate from 6 per cent to $5\frac{1}{2}$ per cent on all classes of paper, but the Federal Reserve Board has not yet approved the reduction. No evidence has been presented to show that current rates for bank accommodations are less than the Federal Reserve Bank rate, or that current rates would be reduced by lowering the Reserve Bank rate, but the directors argue that the consolidated reserve position of the System justifies a lower rate.

The Board has been inclined to the view that the reserve percentage of each Federal Reserve Bank, as well as that of the System, should be taken into consideration as one of the determining factors in fixing the discount rate. If the Federal Reserve Bank of Chicago, with a reserve of around 70 per cent and the Federal Reserve Bank of St. Louis, with a reserve of 63 per cent do not feel justified in reducing their discount rates below the present level of 6 per cent, what argument is there for a borrowing bank, like Atlanta, having a reserve without rediscounts of only 32 per cent, to have a $5\frac{1}{2}$ per cent rate? On the other hand, what are the arguments against a reduction in districts which have so high a percentage of reserve?

Rediscount Rates, Bank Rates and Business Activity

By GEORGE M. REYNOLDS

Chairman of the Board, Continental and Commercial National Bank of Chicago

THE problem of greatest interest and importance now confronting the Federal Reserve Banks, the commercial banks and the business world, is the rediscount rate and its effect on or relation to business activity.

The simple answer to the question whether the rediscount rate of the Reserve Banks should be higher or lower than the rate charged by commercial banks—whether this means the line-of-credit rate, over-the-counter rate or commercial paper rate is not clearly defined—is that the rediscount rate should be higher.

This answer seems to flow readily from British practice and recent American experience. But the economic situation, at home and abroad, is not so simple as to permit this offhand and categorical answer. American experience under the Reserve System has not been sufficient for the dogmatic statement of a formula for the future. The Reserve System has not functioned to any extent under conditions it was designed to meet; it has faced chiefly the very unusual conditions which attended the prosecution of war and the uncertainties and abnormalities that followed. At this time it seems impossible to do much more than state the problem as it is made out of and affected by a great variety of elements. The ascertainment of these elements involves investigation of business customs, bank habits, government operations and, perhaps, the psychological influence of public sentiment.

It is hardly possible to base any rule of future action in regard to rediscount rates on experience as gained by the Bank of England. Conditions in

England and America are so different that the British rule as to the bank rate contains little of value except for suggestion, and even this little decreases as the banking and commercial paper customs of the two countries are contrasted. In the United States, for instance, the Reserve Banks have no direct relations with the public and receive deposits only from banks and the government. In this country the "open market" has few points in common with the English bill market. In the United States there are over 30,000 independent banks scattered through a vast territory whose activities are tremendously varied, instead of a few banks with thousands of branches serving a country of high industrial and commercial development.

The view is often expressed that the rediscount rate should be invariably higher than the market rate—usually meaning the prevailing rate for commercial paper—because the Reserve Banks are, after all, *reserve* banks and should be called on for rediscounts only when the bank desiring to borrow is under strain. There can be no disagreement about the desirability of the increase in rediscount rates when business expansion needs to be checked, and there may be reason for keeping them regularly higher than the market rate. It must not be forgotten that, whatever the Reserve Banks may be in law, in fact, they are regarded no less by bankers than by business men and the public as a kind of financial hospital to which all classes may go to have their wounds treated, regardless of the causes of the wounds. The banker, and the business man through his banker, wishes the same treatment whether he

has been hurt through his own derelictions or through a conjunction of economic causes, unforeseeable and uncontrollable. But the determination of a rediscount policy for the future calls for close analysis.

INFLUENCES THAT HAVE AFFECTED REDISCOUNT RATES

Since the depression following the War the factors influencing rediscount rates have been given serious consideration. At its meeting in September, 1921, the Federal Advisory Council expressed the view that rediscount rates should bear a direct relation to a Federal Reserve Bank's reserve and to the general money market, and that, in addition, consideration should be given to the items enumerated in the Council's recommendation of May 17, 1921, as follows:

1. The reserves of the Federal Reserve System as a whole.
2. The reserve position of the Federal Reserve Bank whose rate it is contemplated to change.
3. The condition of all the banks of the country as a whole, and of the several Federal Reserve districts.
4. The economic and financial condition of the country.
5. World conditions, both economic and political.
6. The eventual establishment of a credit rate policy for the Federal Reserve Banks by which the rediscount rate to member banks is higher than the prevailing commercial rate, taking due consideration of the prevailing open-market rates for various classes of loans both in this country and abroad.
7. Uniformity of rates, while at times practicable and desirable, should not be adopted as a fixed policy, the System being predicated upon the principle that varying conditions might exist in different sections of the country.

It was further suggested that with reference to the general money market

the following factors should be considered in arriving at a conclusion as to what is the current rate for money:

1. Rates charged by banks to their general customers.
2. Rates for one-name paper bought through note brokers.
3. Open-market rates on bankers' acceptances.
4. Rates on Treasury certificates.

This series of rules is apparently given potentially. What have been the determining factors in fixing rediscount rates heretofore seem nowhere to have been given in a similar summation. In the first year or two of the Reserve Banks' operations little attention was given to the rediscount rate. Money was plentiful and there was little rediscounting. The War and its demands brought a change. It is no secret that government financing took precedence over everything else. The rediscount rate, regardless of any influence it might have on business, was adjusted so that the purchasers or holders of war bonds would receive preferential treatment. Otherwise, it is doubtful, with adherence to the Reserve Banks as the instruments whereby credit was to be made available for war purposes, if the war bonds could have been successfully sold at the rates they bore. It was when this need became apparent that the rate was placed at a low point. Business was, of course, a beneficiary. There was no departure from this policy during the War nor, as is often pointed out, until some time after the Armistice.

On pages 62 and 63 of the hearings entitled "Reviving the Activities of the War Finance Corporation," will be found the following by Governor Harding:

The Federal Reserve Board adopted a policy in order to assist in the war financing

which was economically unsound. I say this frankly. Congress authorized certain loans. It authorized the Secretary of the Treasury to determine the rates at which the loans should be issued. The Secretary of the Treasury asked the advice of experts and then fixed the rates of interest to be borne by the several issues of bonds, notes, and certificates. During the time we were actually at war, something like \$18,000,000,000 of bonds were sold to the people, an amount certainly in excess of the normal investment power of the American people in such a short time, and the only way in which those loans could be financed was through the instrumentality of the banks. The only way the banks could undertake to do it was to get some assistance from the Federal Reserve Banks and at a low rate. The low rate of interest borne by these bonds was fixed with a view of holding down the expenses of the government as far as possible. Anyway, that is something the Federal Reserve Board has no responsibility for. In order to make possible the floating of these bonds we fixed a rate less than their coupon rate. Some member banks announced that for a period of six months there would be a rate of $4\frac{1}{4}$ per cent on notes secured by government obligations. The result was that there was no loss to subscribing banks, pending the distribution of the bonds to the public. There were successive bond issues. The principal reason why discount rates were not increased earlier than they were in 1919 was on account of Treasury financing.

Thus it appears that government financing and the desire to have war bonds bear low rates of interest were the determining factors until disaster was scented in 1919. Then present and impending troubles dictated the increase of rates, which was belated. It was some time before this increase that liquidation began. It was a considerable time afterward that deflation became a visible reality. It may be said only with diffidence that the increased rates had anything more than a moral effect. Members of the Reserve Board said repeatedly, and

cited figures to show, that the peak of credit and currency expansion was reached some months after higher rates were made effective. This indicates either that business had such an impetus that rediscount rates had no effect in stopping it, or, if they had any effect, considerable time was required to make it apparent. If this experience is to be taken as a demonstration of the efficiency of an increased rediscount rate to stay business activity, it must also be taken as a first indication of the time relation between an advance or change of rate and business operations.

But whether the high rediscount rate did or did not halt business and force deflation and liquidation, or whether business toppled over for other reasons, there is no doubt that it toppled. Gradually the credit situation cleared and is still clearing. Coincident therewith further study of the rediscount rate and its influence and effect began. As the reserve percentages of the Reserve Banks began to mount, the demand for lowering of the rates became more and more insistent. The increase of reserves was not, however, due entirely to liquidation. The flow of gold from abroad was steady, and became a very important, if not the most important, factor in building reserves up to a high point. It must also be noted that the rates charged by commercial banks did not go down either simultaneously with those of the Reserve Banks, or proportionately to them. Commercial banks were affected only indirectly by the great inflow of gold. It required liquidation by business to permit them to build up their reserves and pay off their debts to the Reserve Banks.

This would seem to show that rediscount rates were fixed with no consideration of the rates charged by the commercial banks. The assump-

tion of a causal relationship between the two, therefore, remains to be proved by the presentation of evidence that the experiences of the past two years does not offer.

THE TIME RELATIONSHIP BETWEEN BUSINESS COMMITMENTS AND BORROWING

If no relationship, or one that is indirect or nebulous, exists between rediscount rates and commercial bank rates, it becomes apparent that there can be no relationship, or, at least only a very remote one, between rediscount rates and business activity; it is the commercial bank rate that business pays, not the rediscount rate.

For present purposes, then, the question may be stripped down to the time relationship between the rediscount rate and the commercial bank rate, between the commercial bank rate and business activity, and then between the rediscount rate and the latter. For the present, also, it will be necessary to ignore the manifest influence of remote and indirect causes. In a business scheme so intricate as that of the world today, it would be hazardous to be dogmatic about such relationships. The problem is, however, to determine, if possible, the more immediate relationships—the causes which act and react on one another so as to permit the application of direct evidence. It is pertinent here to note, for instance, that there are some thousands of banks which are not members of the Reserve System; that each operating bank is an independent entity, subscribing to no rules as to interest charges and often getting "all the traffic will bear"; that loan risks vary with classes of business and in different districts, and that the demand for capital forces new and undeveloped sections to bid high in order to attract funds. It is

probably only in the large centers and well developed industrial districts that money rates are subject to the controlling influence of reserve condition, supply and demand, gold imports, etc.

To get at the time relationship between business activity and borrowing, it is permissible to take for example the customary operations of a merchant or manufacturer. It is common knowledge that his interest in the present state of all business and of his own business is shared with his concern for what the future holds. He plans and manufactures and buys for a coming season. No matter how active present operations, the future concerns him as much. He may or may not sound out his banker as to his coming financial needs. Whether he does or not, he makes contracts and commitments for a coming season. If the banker has committed himself in such cases, he will to some extent have foreknowledge of the demand to be made upon him. But often, if not usually, he may be wholly unaware of what his customer contemplates. Business men will not arrange in advance for credit unless they foresee the impossibility of meeting their obligations out of current resources. If they have a line of credit, they will not indicate their intention to use it at a particular time or during a particular season unless it promises to be insufficient for their prospective needs. Nor will the member bank signify its intention to rediscount in the future.

In such circumstances the business world, each unit operating by itself, may be building the foundation of a credit structure in the autumn; the commercial banks may not be called on for loans until spring and it may be midsummer before the contracts and commitments made months before are reflected by a demand for rediscounts at the Federal Reserve Banks. How

is a rediscount rate going to meet an over-extended condition, in the summer, which was produced by operations begun and completed many months before?

Commercial bank officials and those of Reserve Banks, also, study business conditions constantly. Many of them have information and statistical organizations. They gather the best statistical evidence they can, but the Reserve Bank officers have no privity of interest and no intimacy of relationship with business men. Even with superior advantages in this respect, officers of member banks cannot anticipate conditions except in a very general way. One banker might be alarmed at the prospect of a large demand for loans and his competing neighbor have no evidence of such impending events at all.

It is such conditions that call into play the highest banking skill and judgment. Such conditions demand of the banker a prescience which can come only from such a familiarity with business that he feels rather than knows what is before him. In making his half-intuitional estimates he will, of course, take account of the fact that the Reserve Bank is ready at hand if there is need. He will take care of his customers and try to adjust his rates to competitive conditions. His conclusive "no" will send potential borrowers to other banks, to the levelling of the business of all of them and a fairly accurate adjustment of interest rates. But, dealing only with banks, Federal Reserve officials will have an imperfect knowledge of these conditions. And yet upon them rests the obligation of leadership in checking or stimulating business by a proper adjustment of the rediscount rate, if the rediscount rate can do it.

It seems fair to say that while an effort may have been made or is being

made to adjust rediscount rates on the basis of ascertained future business operations, the probability is that the rate has been fixed only in relation to what is or what has been, so far as it has been fixed at all in relation to business activity.

CONCLUSIONS

The import of this article has been:

1. That rediscount rates cannot be fixed on the basis of British experience.
2. The opinion that rediscount rates should be higher than commercial bank rates is based on experience during war conditions and business contraction which may not be a sufficient guide for the future.
3. Rediscount rates have heretofore been fixed chiefly by consideration of factors other than their possible effect on business activity.
4. Rediscount rates can affect business activity only through bank rates which bank customers must pay.
5. Bank rates are not only different in different sections, but are determined by present conditions, whereas business commitments are made for the future.
6. To influence business activity, bank rates would have to be determined in relation to the future commitments of customers and the rediscount rate would have to be in correspondence with the bank rate, both as to amount and time.
7. It is the knowledge and judgment of bank officers and reserve officers on which reliance must be placed for the control of business conditions through credit.
8. Insofar as the rediscount rate can affect business activity, it must be determined far in advance if it is to have any appreciable effect.

There has been no disagreement among bankers as to the necessity for raising the rediscount rate when the need of checking business activity was certain. If recent conditions gave promise of permanency, there could be no question as to the desirability of having rediscount rates always higher than bank rates. On the basis of

actual recent experience only one policy has been warranted. But as to a policy to control in the future, further experience must be the guide. In any event, changes in rediscount

rates must be made well in advance of foreseeable changes in business activity, if the rates are to be used for the purpose they are commonly supposed to serve.

Theoretical Considerations Bearing on the Control of Bank Credit Under the Operation of the Federal Reserve System

By CHESTER A. PHILLIPS

University of Iowa

THE most important change in our banking machinery entailed by the Federal Reserve Act as bearing upon the question of the expansion and contraction of our circulating media is the introduction of compulsory bankers' banking. The essence of bankers' banking in the United States is the reserve dependence of the commercial banks upon the regional institutions. The deposits on the books of the regional banks are the reserves of the commercial banks. Inasmuch as the deposits of the regional banks are themselves expansible and contractile, the deposits of member banks, which would be elastic even if their reserve foundation were *inelastic*, now have an elasticity raised to the second power.

Moreover, the elasticity of both the deposits of the regional banks and of the members are buttressed and supported by the Federal Reserve note-issue provisions. Under the old national banking system an expansion of loans and a consequent expansion of deposits in the banking system was ordinarily accompanied by a rising physical volume of trade and rising prices. The growth in business transactions, coupled with higher prices, impelled men to carry more money in their pockets and merchants more

money in their tills. But the swelling of pocket and till money involved a withdrawal of cash from the commercial banks. As money left the banks, their lending power was curtailed, and expansion of credits and rising prices were brought to a halt.

Under the operation of the Federal Reserve Act an expansion of loans and a consequent expansion of deposits, accompanied by rising prices and expanding physical volume of trade, also impel men to carry more "money" in their pockets and merchants, more in their tills. Since 1914, however, the demand for additional pocket and till money has been met by the issue of *promises* of the Federal Reserve Banks to pay money. Lawful money is no longer lost by commercial banks. Instead it is held by the Federal Reserve Banks as a foundation on which is reared a three-fold credit structure: (1) deposits of Federal Reserve Banks; (2) deposits of member banks and (3) Federal Reserve notes.

The control of credit under our Federal Reserve System, therefore, becomes a matter of greater importance than under the old régime. Formerly an automatic check was imposed on credit expansion before extreme limits were reached. Today, in the absence of that automatic check,

we are to depend upon regulation of the rediscount rate as a chief means of control.

A MEMBER BANK CANNOT MAKE MANIFOLD LOANS

Now the effectiveness of the rediscount rate as an instrument of controlling bank loans and, therefore, deposits, hinges on the relation between the amount borrowed by a member bank and the amount that the same bank is able to lend as a result. If a member bank is able to lend five dollars on the basis of one dollar borrowed, it is evident that the borrowing bank would be willing and able ordinarily to pay more than 4 or 6 per cent for borrowed funds. On the other hand, if the borrowing bank is able to lend only dollar for dollar on the basis of borrowed funds, that bank will not ordinarily pay a higher rate of rediscount than it receives at its counter. What are the facts at this point?

It would at first appear that a borrowing bank would be able to make manifold loans on the basis of borrowed reserve. Does not the balance sheet of a typical national bank show loans (and deposits) equal to several times its reserve? If reserves of \$100,000 support loans of \$1,000,000 (and deposits of the same approximate amount), would not the acquisition of additional reserves of \$100,000 enable the bank to support total loans of \$2,000,000?

Normally, the bank that attempted to increase its loans by \$1,000,000 on the basis of \$100,000 new reserve would quickly be face to face with the problem of how to meet unfavorable clearing balances of large proportions. The borrowers of the \$1,000,000, leaving the proceeds of their loans on deposit, would draw checks against their bank balances for most of the \$1,000,000; those checks would be sent far and wide to creditors and, returning

to the bank in question, would be paid in cash or its equivalent. It is true that some of the checks drawn by borrowers would be sent to creditors who were depositors in the drawers' bank; in that event there would be no immediate corresponding loss of cash by the lending of the bank. It is also true that some borrowers would not withdraw all the funds borrowed. If due allowance is made for these two considerations, we may conclude that for every dollar that a typical American bank lends, it loses not less than eighty cents through direct cash withdrawals by borrowers and through unfavorable clearing balances.¹ In other words, the typical banker is able to lend approximately \$1.25 for each \$1.00 borrowed. It follows that rediscount rates roughly equal to the market rates (if the expense of carrying on the banking business is considered) will ordinarily be sufficiently high to serve as a check on borrowing by member banks.

BORROWED RESERVE SUPPORTS MANIFOLD LOANS IN THE BANKING SYSTEM

It may be added that borrowed reserve normally does become the foundation of manifold loans *in the banking system*. Bank A borrows \$100,000 from the Federal Reserve Bank and in turn lends \$125,000, more or less, to customers. The borrowing customers draw checks against their replenished balances and those checks are remitted to creditors. The creditors deposit the checks in their own banks. When the checks are cleared and collected, not only will the drawee bank lose approximately \$100,000 but other banks—banks B, we may say for

¹For a more nearly accurate and more detailed statement see the writer's *Bank Credit*, The Macmillan Company, New York, 1921, Chapter III.

convenience—will have gained that amount in deposits, and a corresponding amount in reserve. The lending officers of banks B, mindful of the fact that a reserve must be held against the newly acquired deposit liabilities as well as against any deposits arising from additional loans made on the basis of the reserve freshly acquired, will be constrained to add to their loans not \$1.25 for each dollar deposited, but, approximately \$1.10.

If banks B now lend \$110,000 on the basis of \$100,000 newly lodged in those banks, they will *tend* to lose to other banks—banks C—approximately 80 per cent of the amount loaned, or \$88,000; the \$12,000 left in banks C, may be regarded as reserve against the \$100,000 in deposit liabilities growing out of the lodgment of that amount of checks drawn on bank A and against additional deposits growing out of the \$110,000 in loans. Banks C, having acquired \$88,000, are in a position to lend approximately \$96,800 (\$1.10 for each dollar of deposited reserve). If 80 per cent of their loans are lost to other banks, banks C would lose \$77,440 and retain \$10,560 (\$88,000—\$77,440) as reserve against \$88,000 in deposit liabilities arising from the lodgment of that amount of checks drawn on banks B and against additional deposits growing out of the \$96,800 in loans.

This chain of operations continues until the original \$100,000 becomes very widely distributed and the total loan expansion results in deposits sufficient to cover or absorb the borrowed reserve.

CAN A BANK MAKE MANIFOLD LOANS DURING PERIOD OF LOAN EXPANSION?

At this point a crucial question arises. If all banks within a credit area were expanding their loans at the

same rate, would it not be possible for individual banks to make a several-fold loan expansion, consequent upon a reserve acquisition, without losing cash through unfavorable clearing balances, thereby rendering control of credit expansion possible only by raising the rate of rediscount unprecedentedly?

If the First National Bank of Dayton, Ohio, borrows \$100,000 from the Federal Reserve Bank of Cleveland at a time when other banks in the same credit area are likewise borrowing, and all expand their loans in such a manner that what each would normally lose in reserve is met and offset by streams of funds coming from other banks, the First National Bank of Dayton would be able to lend several dollars for each dollar borrowed, even if allowance is made for the likelihood that the proceeds of loans secured from the regional bank at Cleveland would be taken partly in Federal Reserve notes. Under these conditions, with the bank in question able to lend four or five dollars to each dollar borrowed, it has often been contended that a rate of rediscount that fell appreciably short of being four or five times the rate of discount or market rate would not be effective. That the contention is ill-founded may easily be shown.

When all banks in a given credit area are expanding their loans, the additional lending power of each is traceable to *two* quite different facts or forces. The first is the fund *borrowed* by the commercial or member bank, and the second is the fund or funds that such a bank receives through deposit channels and as a result of the lending operations of other banks. The point to be stressed is that what a member bank borrows does not determine the amount that it will receive in deposits that arise out of the lending operations of other banks. If within a

credit area where all member banks are borrowing and expanding their loans, one institution suddenly ceases to borrow, the stream of increasing deposits flowing from the expanding banks will tend to continue to swell the deposits and, therefore, the lending power of the bank that has ceased to borrow. A resumption of borrowing by the exceptional bank will enhance the lending power of that bank by an amount only slightly in excess of the amount borrowed.

A clear cut distinction must be drawn in banking between lending power that owes its existence to funds borrowed by a given bank and lending power that owes its existence to reserve acquired as a consequence of expanding loans on the part of *other* banks. When that distinction is clearly drawn the persistent contention referred to loses its semblance of validity.

Having seen on what grounds of sound theory the control of bank credit, *i.e.*, loans and deposits, rest, we may now be permitted briefly to examine the question whether the rediscount rate ought to be higher or lower than the market rate.

CONTROL OF BANK CREDIT THROUGH THE REDISCOUNT RATE

The rediscount policy of the Federal Reserve Board has gone counter to that of the great central banks of Europe, notably the Bank of England, the European policy having been to maintain the rediscount rate above the market rate.

Numerous guides have been followed by the directorate of the Bank of England in the determination of the bank rate: the reserve ratio, the state of trade, international gold movements and the market rate. Likewise, our Federal Reserve Board has also been governed by no single factor. While the state of trade, the reserve

ratio, the fiscal needs of the government, etc., have all received attention, the writer believes that too little effort has been made to bring the market rate into harmony with what may be called the *natural* rate of interest, the natural rate being the rate at which the supply of and demand for loanable capital goods, as distinct from "money," may be equated.

Although it is impossible always accurately to ascertain what the natural rate of interest is, it is not difficult to detect a wide disparity between the market and natural rates. The disparity between the market and the natural rates during the early period of credit expansion under the operation of the Federal Reserve Act, was due measurably to an inflationistic policy with a low rate of rediscount as its central feature. With a low rate of rediscount obtaining, our market rates were low and general prices rose in conjunction with an expansion of loans and deposits. Rising prices gave birth to rising profits, and the predictable increased demand for funds, with a consequent extreme rise in the market rate of interest, was soon in evidence. In a country like the United States where capital is highly productive and preference for present goods over future is pronounced, cheap money can be had only by making everything else dear; depression of interest rates engenders credit expansion and rising prices. Indeed, the price level is itself an index of the relation of the market to the natural rate when allowance is made for the changing phases of the business cycle.

Our extreme and recurrent expansion and contraction in industry and trade can be avoided, not by keeping the rate of rediscount invariably above the market rate, but by keeping it distinctly above the market rate during periods of expansion and less markedly so, or

even below the market rate, during periods of crisis and depression. Let the brakes of high rediscount rates be set early, long before the bottom of the hill is reached; and let the accelerating

force of low rates be applied with similar promptness and decision. If the market rate is kept in harmony with the natural rate, violent changes in the general price level can scarcely occur.

Agricultural and Commercial Loans

A Comparison of Loans Made in a Great Agricultural State with Loans to the Largest Bank and to Member Banks in the Largest City in the Seventh Federal Reserve District

By J. B. McDUGAL

Governor, Federal Reserve Bank of Chicago

IT would be too much to expect the general public to have more than a casual comprehension of banking or of the relations of the Federal Reserve Banks to other banks or to business. It is not expected that the public will understand the operations of a factory which makes electrical machinery or of the electrical machines that are made. Still any well informed man may know in a general way what a dynamo is and have a grasp of what is meant by horse power. So might he know that a bank in a great central city probably generates a large horse power in credit and that comparison of the operations of such a bank with those of any smaller bank can be valuable or informative only if relative size is considered.

In this country there are banks of all kinds and sizes. The customary method of grading banks is by "capital and surplus," and "deposits." It takes 40 banks with \$25,000 capital each to measure up in capitalization to one with \$1,000,000. It takes 400 such banks to equal a \$10,000,000 institution. If the comparative figures are carried far enough, and total resources are used as the basis, it will be found that there are single banks in New York and Chicago with resources

larger than the combined resources of all member banks in certain individual states or perhaps in several states.

These large banks have as customers many small banks, as well as individuals and corporations. When borrowing from the Federal Reserve Banks, their transactions are usually in large amounts. It is natural that what is considered moderate borrowing for a large bank should appear extravagant when compared with the amount borrowed by a small bank. A loan of fifty million dollars appears very large when compared with one of fifty thousand. Relatively, however, fifty millions may be much more moderate than fifty thousand, if due consideration is given the respective reserve balances maintained with the Federal Reserve Bank by the institutions involved.

For instance, an officer of a country bank called at the Reserve Bank one day and asked for an additional loan. At the time his bank had become so extended that its excessive borrowings had been the subject of considerable correspondence. He was told that a definite limit must be placed on his borrowings at a point not far from the amount already borrowed. The country banker was piqued. He called at-

tention to the many millions loaned to some of the Chicago banks. The country bank's debt was less than two hundred thousand. A comparison was made at once. It was found that on the basis of reserve deposits the big banks might have owed the Federal Reserve Bank nearly three times as many millions if they had borrowed in the same proportion as the small bank.

A part, at least, of the criticism of the operations of the Reserve Banks during the recent trying times seems to be based on instances of similar misconception of facts and figures. A moderate borrowing by a large bank may appear out of proportion when compared to an actually excessive borrowing by a small bank, if only absolute figures are used.

In connection with the work of the Joint Committee on Agricultural Inquiry, which was instructed to "investigate . . . the banking and financial resources and credits of the country, especially as affecting agricultural credits," the Federal Reserve Bank of Chicago made a careful study of its loans to member banks. The purpose was to ascertain if there had been any discrimination, real or apparent, against banks serving agricultural communities.

Section 4 of the Federal Reserve Act was kept in mind. This section, in outlining the duties of directors of Federal Reserve Banks, provides as follows:

Said board shall administer the affairs of said bank fairly and impartially and without discrimination in favor of or against any member bank or banks and shall, subject to the provisions of law and the orders of the Federal Reserve Board, extend to each member bank such discounts, advancements and accommodations as may be safely and reasonably made with due regard for the claims and demands of other member banks.

The study developed some interesting facts that are pertinent to this discussion. The loan records of commercial banks are not kept in such form that borrowers can be classified by occupations in any comprehensive way. It is true that for some time past Federal Reserve Banks have required member banks in their applications for rediscount to specify the business of customers whose notes are offered. But this information provides no adequate measure of the extent of the service rendered to agriculture. It is well known that many country banks make a practice of using their farmers' paper for rediscount only after exhausting their supply of other eligible paper which is presumably better known at the Federal Reserve Bank, such as, "commercial paper" and notes secured by United States government obligations.

No statistics are available to show the absolute amounts loaned to various industries, but the Federal Reserve Bank of Chicago was able, by a comparison of its loans to member banks, to obtain conclusive evidence that it had not discriminated against agriculture. Loans to and reserve deposits of member banks in a preëminently agricultural state were compared with similar figures for member banks in the other states as well as the largest cities in the district.

One of the tabulations made is printed in full on page 201 and presents an interesting comparison of the relative borrowings by all member banks in the preëminently agricultural state with all member banks in the city of Chicago and with the individual bank whose borrowings exceeded those of any other bank in the Federal Reserve District.

The table on page 201 includes percentages, showing the ratio of amounts borrowed to reserve deposits kept in the Federal Reserve Bank, a method

LOANS TO ALL MEMBER BANKS IN A GREAT AGRICULTURAL STATE COMPARED WITH LOANS TO THE LARGEST BORROWING BANK IN THE SEVENTH FEDERAL RESERVE DISTRICT AND LOANS TO ALL MEMBER BANKS IN THE CITY OF CHICAGO; ALSO, COMPARATIVE RESERVE DEPOSIT FIGURES.

(In thousands of dollars)

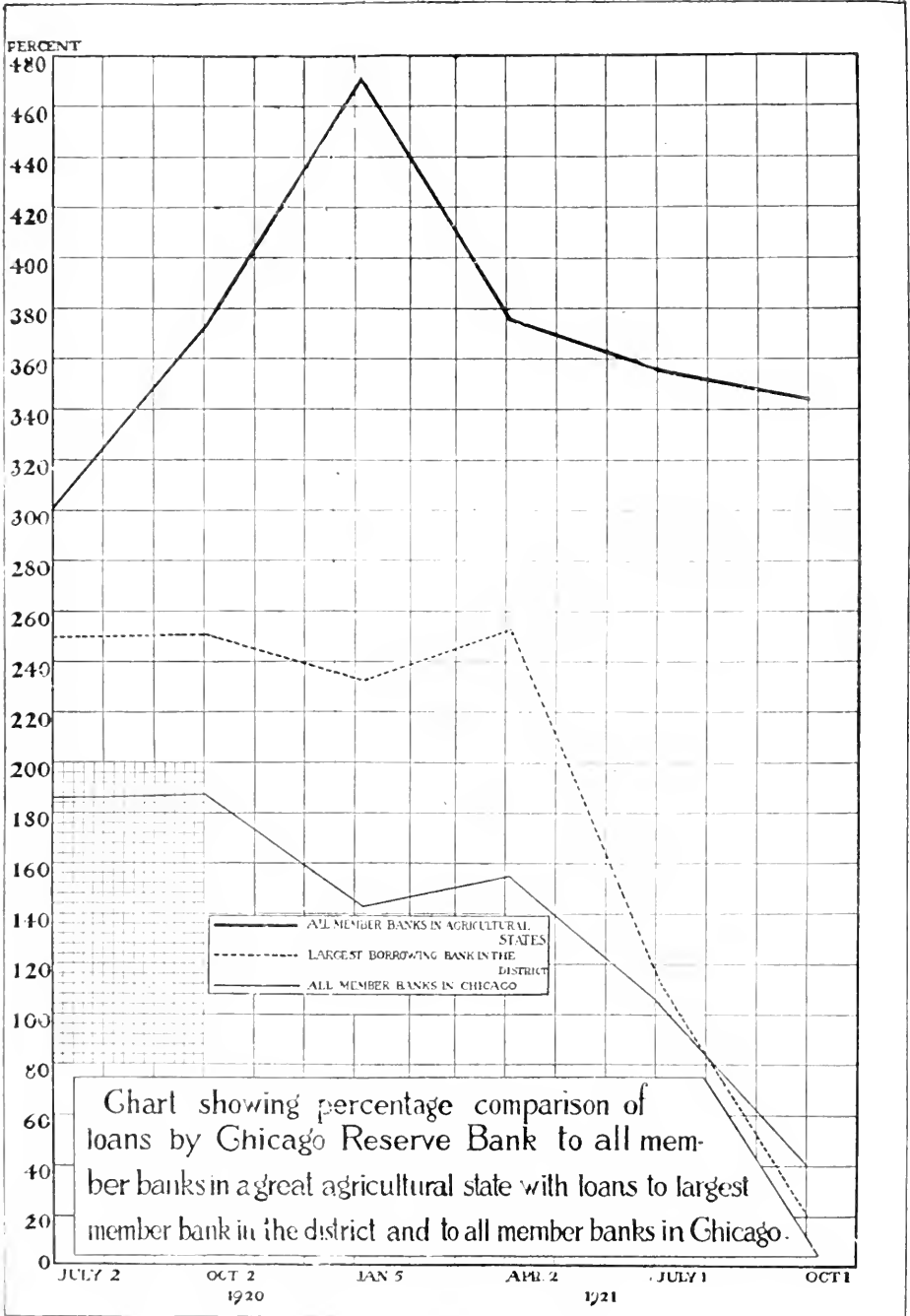
		All member banks in Agricultural State	Largest borrowing bank in the District	All member banks in Chicago
July 2, 1920 . . .	* Reserve Deposit	21,000.	32,000.	135,000.
	Loans	63,000.	80,000.	252,000.
	Per cent loans to reserve deposit	300.	250.	186.6
October 2, 1920.	* Reserve Deposit	21,000.	31,000.	133,000.
	Loans	78,000.	78,000.	250,000.
	Per cent loans to reserve deposit	371.4	251.6	187.9
January 5, 1921	* Reserve Deposit	20,000.	30,000.	130,000.
	Loans	94,000.	70,000.	187,000.
	Per cent loans to reserve deposit	470.	233.3	143.8
April 2, 1921 . . .	* Reserve Deposit	20,000.	28,000.	121,000.
	Loans	75,000.	71,000.	188,000.
	Per cent loans to reserve deposit	375.	253.5	155.3
July 1, 1921 . . .	* Reserve Deposit	18,000.	29,000.	123,000.
	Loans	64,000.	33,000.	128,000.
	Per cent loans to reserve deposit	355.5	113.7	104.0
October 1, 1921.	* Reserve Deposit	18,000.	32,000.	127,000.
	Loans	62,000.	7,000.	51,000.
	Per cent loans to reserve deposit	344.4	21.9	40.1

* Average for month.

of comparing accommodations granted which is familiar to all bankers. The figures are given at intervals of three months and cover the period of greatest expansion of credit in the United States. It is worthy of note that the total borrowings for all member banks in the agricultural state were on one day nearly five times their total reserve deposits, while the total borrowings of the largest borrowing bank in the Federal Reserve District at the peak were about two and one-half

times its reserve deposit. It is also interesting to note that while on October 1, 1921, the largest borrowing bank in the Federal Reserve District was indebted to the Federal Reserve Bank to the extent of only 22 per cent of its reserve deposit, the total borrowings for all member banks in the agricultural state on the same date were 344 per cent of their total reserve deposits.

It will also be noted from the chart on page 202 showing these percentages,



that since April 2, 1921, there has been great decrease in the amounts owed by the city banks, while the curve for the agricultural state does not show a proportionate decline.

This examination of actual figures makes clear two points: (1) There

was no discrimination against agriculture by the Chicago Reserve Bank. Member banks in cities were not favored. (2) Relative, rather than absolute, figures must be used if an accurate idea of the situation is to be had.

Popular and Unpopular Activities of the Federal Reserve Board and the Federal Reserve Banks

By WILLIAM A. SCOTT

University of Wisconsin

ON account of the extraordinary conditions under which our Federal Reserve System has been obliged to operate, public opinion towards it has taken peculiar twists and turns. Hopefulness, uncertainty and lack of enthusiasm characterized it at the start, a condition easily explainable by the party controversy which preceded its establishment, differences of opinion regarding the details of the law governing it and conflicts of interest among the people most directly affected by it. Those who had fought and bled for the Aldrich plan were naturally critical of this one and uncertain regarding the manner in which it would work. The state bankers, generally, were hostile towards it because they feared that some of their sources of profits would be jeopardized, and many national bankers did not like its coercive features. The indiscriminating public undoubtedly hoped that it would succeed and was disposed to give it a fair trial.

The outbreak of the European War, three months before the Federal Reserve Banks were ready to begin operations, cleared the atmosphere and smoothed the pathway for them so far as public opinion was concerned, though in other respects it complicated their

problems. The financial difficulties which speedily followed made most people thankful for their existence and created a feeling of dependence upon them. No one was disposed to hamper them by criticism.

Before our entrance into the War, their activities do not seem to have attracted public attention to an extent sufficient to arouse either its criticism or its approval. The policy developed during this period of concentrating in their vaults as large a part of the rapidly increasing gold supply as possible by exchanging their notes with the banks for gold, important though it was in checking somewhat the rapidly expanding bank credits and in rendering this mass of the precious metal easily available for any purpose for which it might be needed, seemed to excite curiosity rather than interest.

WAR COMPULSIONS

With our entrance into the War in April, 1917, the Federal Reserve Banks were called upon to assist the Treasury in its colossal financial operations. As financial agents of the government, they performed the work of executing its plans and measures and, what is more important, so long as the War lasted and for some time thereafter,

their policies were shaped primarily with reference to the government's needs and interests.

The greatest of these was the flotation of billions of bonds and short time notes, and the Reserve Banks' part in the work was to act as the government's agents in the sale of these securities and to aid in creating a market for them. To this end they established discount rates considerably below the market with a differential in favor of loans on the security of government bonds and notes, rates low enough, in fact, to make it possible, with the aid of rediscounts, for member banks to loan without loss to bond buyers at rates not higher than the bonds and notes themselves yielded.

There can be no doubt that this was a violation of the rules of sound commercial banking. It opened the doors to the inflation of bank credit and to the evils which follow in its train. Conscious though they were of this fact, the Federal Reserve Banks and the Federal Reserve Board were forced to adopt this policy. The Liberty loans could not otherwise have been floated. Without borrowing from their banks, the people could not have purchased their necessary allotment of bonds, and the banks could not have made these loans unless the Federal Reserve Banks had rediscounted for them on the security of these loans at rates which did not involve loss. Had the Reserve Banks refused to adopt this policy, public opinion would certainly have condemned them and probably Congress would have forced them to it.

RESPONSIBILITY FOR THE RISE AND FALL OF PRICES

One of the penalties that had ultimately to be paid for this violation of sound banking principles was misunderstanding and criticism, not criticism of this policy, which had the hearty and

even enthusiastic endorsement of public opinion, but criticism of the measures the Federal Reserve Banks had ultimately to adopt in order to save themselves and the credit system of the country from the consequences of this policy.

This misunderstanding and criticism resulted from the contemporaneous expansion of bank credits and the rise of prices. Both were necessary results of the same causes, namely, the readjustments in the relations between the demand and supply of important groups of commodities and the transfer on a large scale of demand operations from private individuals and corporations to the government. But the people, with the assistance of a group of economists, interpreted the causal relations differently. They insisted that the expansion of bank credits was the cause of the rising prices, and, since the discount policy of the Federal Reserve Banks was held to be chiefly if not wholly responsible for the inflation, these banks were held responsible for the high prices.

This theory aroused no widespread criticism of the Federal Reserve Banks so long as prices continued to rise and prosperity to be general, but, when the high price period came to an end and the opposite movement got under way, the belief that the Federal Reserve Banks and the Federal Reserve Board could greatly influence and perhaps control price movements subjected them to pressure from people who were being, or thought they were being, injured by the slump in prices and, when the banks did not yield to this pressure, to the severe criticism of these people.

The course of events which resulted in such pressure and criticism seems to have been about as follows: The Armistice was succeeded by about a year and a half of booming business, accom-

panied by extravagance, speculation and soaring prices. Bank credits, including those of the Federal Reserve System, expanded rapidly, and bank reserves rapidly declined. Towards the end of 1919 ordinary prudence and a decent regard for the safety of our credit system demanded that a halt be called. The Federal Reserve Board and the responsible officers of the Federal Reserve Banks felt and knew that good banking policy would have required them to put on the breaks much earlier, but they were stopped by the financial exigencies of the government whose need for floating large loans did not end with the Armistice. The government needed the aid of the Federal Reserve Banks quite as much as during the War.

During the year 1919 the Federal Reserve Banks and the Federal Reserve Board tried in vain to moderate the pace of the member banks by moral suasion and other indirect methods and it was not until December of that year that the financial condition of the government freed their hands to such an extent that they felt free to apply the brake of increasing discount rates.

The upward movement of prices came to an end in the early summer of 1920 and the slump that followed synchronized very closely with the period of high discount rates at the Federal Reserve Banks. The pressure upon the banks to carry people who were in trouble on account of the rapidly shrinking value of inventories, and farmers whose crops could either not be marketed at all or at prices much below the cost of production, was very great. The Federal Reserve Banks and the Federal Reserve Board urged the member banks to extend all possible assistance to these distressed people and supported them in this policy by liberal rediscounts, with the result that the total loans and discounts of the

banks continued to increase for several months after the slump in prices started and did not show any tendency to decline until near the end of the year 1920. The demand for bank accommodations was so great as to keep rates at a high level and to make excessive rates possible in individual cases.

PRESSURE FOR LOWER REDISCOUNT RATES

In times of financial distress people always search for an explanation in the hope of finding some means of relief, and, in this case, the process of reasoning outlined above, running from Federal Reserve Bank discount rates through general bank credits to prices, seemed to furnish the key and also to suggest a remedy. Proof that low discount rates result in expanding bank credits and rising prices and high discount rates in contraction of credits and falling prices, seemed to be at hand in the fact, easy to establish by statistics and graphs, that prices did rise during the period of low discount rates and began to fall soon after the policy of higher discount rates was inaugurated. The remedy seemed clearly to be a radical cut in discount rates, which, it was claimed, would result in the expansion of credits or, at least, in preventing contraction and in a check on the price slump and, if continued, in an upward movement of prices.

The spokesmen of the distressed classes in the community deluged the Federal Reserve Board with appeals for this kind of relief and, upon its refusal to grant it, with criticism and, in some instances, even with abuse. The Board was clearly between the devil and the deep sea. There was no question about the necessity for high discount rates and the removal of the differential in favor of government paper-secured loans if the credit system of the country was to be kept in a

sound condition; but it was equally clear on the other hand that that policy was unpopular.

RECENT CRITICISMS OF RESERVE BOARD POLICY.

The old saw that misfortunes never come singly proved true in this case. At this truly critical time the Federal Reserve Board was publicly attacked in newspapers and before Congress. Beside the abolition of the progressive rates in force in four of the districts and a general cutting of discount rates, it is not easy to determine precisely what these critics wanted the Board to do, but one demand seems to have been for it to undertake the task of cleaning up all the dirty places in our banking system even to the extent of correcting the bad practices of individual bankers. Through the examinations conducted by the Controller of the Currency a number of these had been discovered or at least it was so thought. It was also demanded that the Board use its influence with the Federal Reserve Banks to force or to induce them to refuse to grant credit to member banks that were not playing the banking game in the manner in which the critics thought it ought to be played.

In the course of this campaign of criticism, a number of charges were brought against the Federal Reserve Board and the Federal Reserve Banks, especially that of New York City. The chief of these were: that the Board is suffering from "bureaumania" and is unsympathetic, governing itself by general rules which it refuses to relax in individual cases which are thought to appeal to the sympathy of its members; that it is extravagant, sanctioning too high salaries and other unnecessary expenditures; that it has permitted an inequitable distribution of credit, Wall Street being favored and the farmers pinched; that it refused to abandon the

progressive rate policy or even greatly to modify it when cases of what were regarded by the critics as excessive rates were brought to its attention, and that it refused to reverse its rate policy when the harm being wrought by the slump in prices became apparent.

In support of these charges, the critics indulged in fallacious reasoning, misuse of statistics and the familiar tricks of the political stump speaker. They frequently disregarded those parts of the Federal Reserve Act which determined the distribution of powers and duties between the Federal Reserve Banks and the Federal Reserve Board, or put an interpretation upon them which varied from that made by the Board. In matters of this kind there is often room for differences of opinion, but the critical energy was moved by the assumption that the Board was wrong and refused to conform to the judgment of a superior wisdom.

Apparently the critical force had no conception of the consequences that would follow the Board's failure strictly to follow general rules of action impartially applied. Even if the laws under which it operates gave it the right so to do, the attempt to deal with the cases of individual bankers or of individual borrowers would soon swamp it with an unmanageable mass of detail and render impossible the execution of any policy however necessary or desirable.

The favorite method of proving that Wall Street was being favored and the farmers pinched was to quote statistics that show that the Federal Reserve Bank of New York was loaning at one time to one member bank, or to a few large member banks, more than certain other Reserve Banks in the agricultural sections were loaning to large numbers or to all their member banks. That it is necessary to observe the relation between the amount of the real credit needs of all the constituents of each

Federal Reserve Bank and the total amount of loans in each case before such statistical comparisons can have any significance, either never occurred to the critics or they chose to ignore the fact in order to make an effect on their audience. Moreover, these facts were not emphasized: That Reserve Banks in the farming country borrowed from other Reserve Banks, usually in the East, or that large banks in centers like Chicago ran up their indebtedness at the Federal Reserve Banks, in part if not chiefly, to help their correspondents located in agricultural sections.

Much was also made of the fact that some member banks in the New York district, rediscounting heavily at the Federal Reserve Bank, were themselves loaning heavily to speculative customers, without attempting to show what was the proportion of such loans to the total in each case or how cutting down the lines of discount of these banks at the Federal Reserve Bank would have affected their constituents as a whole; or without even debating the question whether it would be good policy for the Federal Reserve Bank in New York to refuse to rediscount good, eligible paper for a bank on the ground that it disapproves some of its loans.

The opponents of Reserve Board policy appear to believe that the Federal Reserve Bank of New York and the Federal Reserve Board are guilty of sins of omission or of commission relative to the New York call loan market. They argue that high rates on that market attract funds from other parts of the country which ought to be loaned at home and otherwise would be. Just how they would use the Federal System to prevent this they nowhere make clear. Perhaps they would have the Federal Reserve Bank of New York refuse to rediscount for a bank that loans on the call market!

With almost hysterical enthusiasm were cited the cases of a little bank in Alabama and a few others in which the application of the progressive rate rule had resulted in very high rates on a few loans. These were exploited to the limit in public addresses. The members of the Reserve Board probably disliked these extreme results of the progressive principle quite as much as anyone else, but they stubbornly thought out their own remedy. They recommended a rebate of the excessive interest payments in these cases and the deferring of final judgment on the principle itself until wider experience should give them more light. The critics had their own notions, however, and one was to play upon the feelings and prejudices of their audiences through the use of these extreme cases.

The refusal of the Board to lower discount rates when the slump in prices occurred was classed as "unpardonable." The arguments disclosed complete unconsciousness of the fact that there was room for differences of opinion regarding the best policy to pursue at that time or of the reasons for the Board's refusal. The Board's action could only be accounted for on the ground of "inertia" or "inability to comprehend the meaning of events."

DISCRIMINATION AGAINST THE FARMER

The criticism that the Federal Reserve System has discriminated against the farmers seems to have been endorsed by a good many people in agricultural sections, especially in the South and some parts of the West where farmers have been especially hard pressed by the slump in prices. The real credit needs of these farmers have been very great and their desire for credit in many cases has been in excess of their needs, since they wanted loans to enable them to hold their crops for cost-of-production-plus-profits prices for the

realization of which there were no real prospects. In many cases, doubtless, these needs and desires have not been satisfied and the Federal Reserve Banks, or the Federal Reserve Board, or both, have been held responsible for the failure. Why?

The testimony of Governors Harding, Strong and others before the Joint Commission of Agricultural Inquiry clearly shows that the Federal Reserve System has not been at fault in this matter; that, on the contrary, the resources of this System have been put at the disposal of member banks in the agricultural sections without stint and that member banks have been urged to respond to the farmers' needs to the fullest extent possible. There is no evidence that rediscounts of eligible paper have been refused member banks in these sections, but, on the contrary, the evidence shows that the Federal Reserve Banks in these regions have borrowed heavily from other Federal Reserve Banks and stretched the eligibility rules to the limit in order to accommodate such banks. There is also abundant evidence that member banks have taken advantage of these privileges and as a whole have responded liberally to the farmers' needs. Their rediscounts and loans have expanded rapidly since the slump in prices began, the former passing far beyond the normal lines of credit set for them by the regulations of the Federal Reserve Banks, and in many cases member banks have gone beyond the limits set by sound practice in order to accommodate their farmer customers.

LIMITATIONS OF COMMERCIAL BANKING

The explanation of the farmers' criticisms must be sought in a misunderstanding of the limitations of our commercial banking system, on the one hand, and of our Federal Reserve System, on the other. These critics do

not know that the chief stock-in-trade of commercial banks is short time self-liquidating paper, that the amount of any other kind of paper they should carry is strictly limited and that, if they go beyond this limit, they get themselves and everybody else into trouble. Nor do these critics realize that a large part of their own paper in normal times, and most of what they have to offer in these critical times, is not of the short term self-liquidating kind. It is unfortunate that we do not have institutions especially fitted to satisfy these credit needs, but the fact is that we have not. Our banking system is defective at this point, but from this fact it does not follow that it would be good policy, or any advantage, even to the farmer, to wreck our commercial banks in an effort to do what they are unfitted to do.

Neither do these farmer critics seem to know that a Federal Reserve Bank can serve them only through a member bank and then only by means of rediscounting eligible paper. If the member bank with which the farmer deals does not have eligible paper or is unwilling to offer it for rediscount, the Federal Reserve Bank can do nothing.

MISGUIDED OPPOSITION

The farmer has also misunderstood the operation of high rediscount rates, especially those of the progressive variety. He has thought that these rates have prevented rediscounts by his bank and in this way have made it impossible for his banker to accommodate him. In some cases, doubtless, he has been given this impression by the banker himself who has preferred "passing the buck" to the Federal Reserve Bank to giving his customer the true reason for his unwillingness to accommodate him. That rediscounts in agricultural sections have not been prevented by high rediscount rates is

shown by the facts. The rediscount item has increased in spite of these rates. What these high rates were intended to accomplish and what they evidently did accomplish, was to force more careful discrimination between real and unreal and between greater and lesser needs and to cut down the volume of speculation.

Farmers have also been infected by the theory that the so-called deflation policy of the Federal Reserve Banks caused the slump in prices.

PUBLIC SUPPORT OR CLASS CONTROL

No one would be so rash as to claim infallibility for the Federal Reserve Board or for the responsible officers of the Federal Reserve Banks, least of all these persons themselves. It would be strange if they had not made mistakes. They have had to conduct a new institution during a period in which conditions were excessively abnormal and in which principles and rules of action, seemingly well established by experience, were clearly inapplicable. They have had to blaze new trails and to settle new problems upon which very little light was thrown by past experiences here or in other countries. But no fair-minded person can read and digest the testimony of Governors Harding, Strong, Miller and others before the Joint Commission of Agricultural Inquiry and escape the conviction that every policy they

adopted was carefully thought out in the light of the actual conditions confronting them, that these policies worked on the whole extremely well and in the best interests of the country, that these men are able and conscientious and know their business and that the country was very fortunate to have the operation of the Federal Reserve System in their hands during this extremely critical period in its history.

The unfortunate thing is that few of the fair-minded people of the country can or will read that testimony. The ordinary man knows little about banking and would find it difficult to understand discussions regarding it if he did read them. Public opinion regarding such matters is not formed by careful reflection and weighing of the facts. Large numbers of people are bound to be influenced and to have their opinions determined by such criticisms as have been made. Since the charter period of the Federal Reserve Banks extends for several more years, the effect of this misguiding of the public mind and feeling is likely to be demands upon Congress for modifications of the Federal Reserve System in the direction of making it subservient to special interests and attempts to put the system in the control of men who will use it in the promotion of such interests. It is time for the friends of sound banking to be on the alert.

The Development of an Open Market for Commercial Paper

By E. E. AGGER

Columbia University

IT is the function of an open discount market to promote mobility, elasticity and maximum economy in the use of credit. Mobility is assured through

the free sale and purchase of bills and paper acceptable as a basis of dealing in the market. Where pressure is felt bills are offered for sale and the result-

ing funds relieve the pressure. The funds are offered by those districts where temporary abundance prevails, and where, therefore, a profitable employment of the surplus is sought. Thus, through the instrumentality of the discount market, funds are transferred from places where they are wanted less to places where they are wanted more. This is the essence of credit mobility. Just as an open discount market promotes mobility of credit it also promotes elasticity, namely, expansion and contraction in response to changing demand. An increase in demand is indicated by a growing abundance of paper offered in the market. A decrease in demand is likewise reflected in the liquidation of maturing paper, and in the diminution in the volume of new paper flowing into the market and offered for sale. The more abundant offering of new paper tends to lead to credit expansion, while the liquidation of that which matures, and which is not offset by a corresponding offer of new paper, results in contraction.

An open discount market can be developed irrespective of the system of reserve organization that may characterize a given country. Even under a system of scattered reserves, there is nothing to prevent banks and individuals in different sections of the country from buying and selling discounts from and to one another and from developing whatever market machinery may be necessary for the purpose. Yet since such operations necessarily imply large and rapid movements of funds, it is obvious that under a centralized scheme of reserves, with effective clearing machinery, the inevitable shifting of funds growing out of open market operations can be executed with least friction and delay.

Moreover, under a centralized system

of reserves an open discount market contributes toward economy of operation of the credit system because, by promoting the free flow of funds, it permits the full utilization of available credit in the market before further expansion by the central institution becomes necessary. If pressure develops in any area, through the facilities of the open market the surpluses of other areas can immediately be drawn upon without initial resort to the reserve holding agency. With an open discount market the free credit tends to be completely absorbed before the central reserve agency is called upon for the expansion that usually implies a weakening of basic reserves.

Lastly, it may be said that an open market may also be serviceable in the international flow of credit and in the safeguarding of the domestic reserve situation. If the market is sufficiently well established, and if the dealings in it are of a nature and a scope to engender the necessary confidence, the foreigner may be induced to enter in it and to invest in its wares such surplus funds, temporarily available, as he can command. As demand increases and as rates of discount rise, larger and larger sums may be attracted from abroad. This tends favorably to affect the exchange rates and may obviate the necessity of bullion shipments.

CONDITIONS CREATING AN OPEN DISCOUNT MARKET

Since an open discount market cannot create itself, it follows that the development of such a market must be contingent upon a favorable conjuncture of circumstances.

First of all, an open discount market requires forms of discountable credit instruments that will lend themselves to a free market handling. Not all credit instruments, of course, are available for open market operations. Un-

der the old national banking system, both law and practice checked the development of satisfactory open market instruments. The typical American credit instrument under that system was the single name promissory note, which, owing to the obviously personal character of the credit which it represented, was not adapted to open market operations. We had a so-called "commercial paper market," but its facilities were at the service only of large and nationally known firms. Moreover, it was a market for the first placement rather than for the free rehandling of paper. It would therefore hardly be regarded as a real discount market.

Similarly, the old commercial time draft which had been a common instrument in pre-Civil War days, degenerated, under the pressure of the cash-discount and the open-account system, into a sort of "dunning" instrument, employed, in all except a few lines, for the purpose of collecting overdue accounts. The bankers' acceptance, on the other hand, which is admirably adapted to free and rapid exchanging, was practically unlawful down to the time when provision was made for it in the Federal Reserve Act and in some state laws. Thus we had no open discount market in this country because we had no paper that could be handled in such a market.

But in addition to a satisfactory commodity to be handled in a market, it is also necessary to have prospective buyers and sellers. In other words, there must be a favorable attitude toward the market and a willingness to use its facilities on the part of those who are expected to resort to it. But in this respect, also, American banking practice had developed along different lines. We had put the emphasis on independent, highly competitive local institutions, each more or less distrust-

ful of the rest and safeguarding its business secrets with a peculiar jealousy. The cash-discount and single-name system also tended to emphasize the direct relations between the banker and his client and was thus inimical to the development of a system which implied the free handling of paper in an open market. In general, except in their relations with their regular metropolitan correspondents, bankers did not wish to confess the need for any assistance. Hence there was a strong tendency for them to hold on to the paper that they had originally discounted. They also often objected to disclosing the rates which they originally charged, and some have accused them also of wishing to "hog" the whole interest and of being unwilling to split it with others through a process of rediscounting or reselling in an open market. However all this may be, the fact remains that our bankers were not particularly well disposed toward open discount market operations.

THE RESERVE SYSTEM PROVIDES AN OPEN MARKET

The framers of the Federal Reserve Act thus had a task on their hands. The advantages of an open discount market were freely enough conceded, but how were they to provide the necessary technical expedients? And how lay the foundation for a favorable attitude toward such a market? In an earlier article, published in *THE ANNALS* in January, 1916, the writer discussed the provisions of the Federal Reserve Act and the regulations of the Federal Reserve Board bearing on the subject of commercial paper and promulgated up to that time. The great contribution of the Act itself was a system of reserve centralization and control, the basis of a system of domestic clearings and transfers, and the legalization of

bankers' acceptances. These acceptances were at first limited to export and import transactions, but were later made applicable to domestic transactions as well. Similarly, the amount of acceptances for which a member bank might make itself liable was increased from 50 per cent to 100 per cent of its combined capital and surplus. The Board's contribution is to be found in the regulations which it has drawn up in connection with the different forms of commercial paper and in the policies which it has pursued toward encouraging the use of, and the investment in, paper acceptable for open market operations.

At the present time it may be said that Section 13 of the Reserve Act supplies the member banks with their authority to engage in the acceptance business. The acceptances which they create must have a maturity not greater than six months, exclusive of days of grace. They may grow out of transactions involving the exportation or importation of goods or out of those involving domestic shipments, but in the latter case the acceptances must be accompanied by shipping documents conveying or securing title at the time the member bank makes the acceptance, or they must be secured by warehouse receipts or other such documents conveying or securing title covering readily marketable staples. Similarly, under regulations drawn up by the Board, member banks may accept drafts or bills of exchange drawn upon them by banks or bankers abroad where the purpose is to furnish dollar exchange required by the usages of trade. Such acceptances must not, however, have more than three months' sight to run.

The total amount of acceptances for each member bank is restricted to a sum equal to one-half of its paid-up and unimpaired capital and surplus, al-

though under general regulations the Reserve Board may authorize a member bank to accept bills growing out of exports and imports up to the full amount of its capital and surplus. There is, however, the proviso that in no event may the domestic or the dollar exchange acceptances exceed a total of fifty per cent of the member banks' capital stock and surplus. Similarly, there is a general restriction to the effect that no member bank may accept for any one person or firm to an amount greater than 10 per cent of its paid-up and unimpaired capital and surplus unless the member bank is secured either by attached documents or by some other adequate security growing out of the same transaction as the acceptance. All acceptances in these different classes which mature within three months, exclusive of days of grace, and carry the indorsement of at least one member bank, are eligible for discount at Federal Reserve Banks.

But more important still, so far as an open discount market is concerned, are the provisions of Section 14 of the Federal Reserve Act. This section authorizes Federal Reserve Banks, under regulations prescribed by the Board, to purchase and sell in the open market, at home or abroad, from or to domestic or foreign banks, firms, corporations, or individuals, cable transfers and bankers' acceptances and bills of exchange of the kinds and maturities made eligible for rediscount, with or without the indorsement of a member bank.¹

Since nothing like an open discount market had developed in this country, it was foreseen that in trying to build one up and to win the support of the

¹ In this connection attention should be called to the fact that some of the states have also authorized their banking institutions to engage in the acceptance business.

member banks, the leadership of the Reserve Banks would have to be relied upon. This is what gives special significance to the provisions of Section 14. For the same reason much significance attaches also to the regulations of the Board bearing on the eligibility of paper for rediscount at and for open market purchases by the Reserve Banks.

In general, it may be said that paper to be eligible for discount must have grown out of a transaction involving "producing, purchasing, carrying or marketing goods in one or more of the steps" of "production, manufacture or distribution, or for the purpose of carrying or trading in bonds or notes of the United States."² On the other hand, it must not be paper whose proceeds are to be used for fixed investments of any kind or for other capital purposes; or paper used for speculative purposes or for lending to others. Various expedients such as statements, shipping documents, warehouse receipts, etc., are relied upon to guarantee the essential nature of the paper and to safeguard its security. For purposes of rediscount Section 13 of the Reserve Act made eligible notes, drafts and bills of exchange of certain types. But open market purchases by the Reserve Banks were limited to bankers' acceptances and bills of exchange of the kinds and maturities made eligible for rediscount by Section 13. The effect of this limitation was to rule the promissory note out of the field of open market purchases, leaving within this field bankers' acceptances, bills of exchange and so-called trade acceptances which are defined as drafts or bills of exchange "drawn by the seller or the purchaser of goods sold, and accepted by such purchaser."³

THE RESERVE SYSTEM ENCOURAGES AN OPEN DISCOUNT MARKET

From the beginning the Reserve Board has done all that it could to further the development of an open discount market. It encouraged the Reserve Banks in their efforts to emphasize the importance of acceptances as investments, not only by their own purchases but also in the favorable rates that were accorded them. The Board has cordially approved the acceptance service that some of the Reserve Banks have provided for their member banks. Similarly, the Board has also dealt generously with acceptances in its regulations and decisions, although it has tried at the same time to maintain the principles laid down in the Reserve Act with respect to the fundamental character of the paper. During and immediately after the War the Board stretched a point with respect to renewal paper, but only in exceptional cases can such paper now be considered eligible.⁴

Favorable rates of discount were recognized from the outset as the strongest practical stimulant to the growth of an acceptance market. In their open market purchases the Reserve Banks, that were primarily concerned, quoted more favorable rates for acceptances than for other commercial paper and granted the same discrimination also for acceptances directly discounted for the member banks. Such preference was considered fully justified by the essential character of the paper. On the other hand, the Reserve Banks allowed the open market rates to control buying rates as largely as possible, shading the rate slightly where a strong indorse-

² Regulations A, Series of 1920.

³ Regulation A, Series 1920, Section V.

⁴ See *Sixth Annual Report of the Federal Reserve Board* covering operations for the year 1919, page 22. *Ibid.*, page 33.

ment justified it. To induce broader purchases by member banks the Board itself recognizes that a differential rate must be maintained in favor of prime bills indorsed and rediscounted by memberbanks. Such differential always assures the member bank of some profit should it find it necessary or desirable to rediscount at its Reserve Bank the acceptances that it has purchased.⁵

SPECIAL INDUCEMENTS TO BUY ACCEPTANCES

As a further inducement to member banks to invest in acceptances, some of the Reserve Banks have maintained special lines of service. The New York Bank, for example, has for several years bought bills in the open market on member bank account. If desired, the Reserve Bank retains the paper, collects it at maturity and credits the member bank's account.⁶ The Richmond Reserve Bank also buys acceptances for its member banks and allows the member bank to specify the names of the acceptors whose paper is wanted.⁷ The Richmond Bank also has been buying unindorsed bills directly from the acceptors. This encourages the member bank to utilize its acceptance powers, and, at the same time, affords the Reserve Bank the opportunity of keeping well informed concerning the methods employed in the granting of acceptance credits. The Boston Bank has been making persistent efforts to cultivate investment in acceptances for secondary reserve purposes. The Cleveland and Chicago Banks report a steady broadening of the market as a result of successful missionary work

with their member banks through their member bank relations department.⁸

In the development of the acceptance market it was recognized that the dealer would of necessity play an important part. It is essential to the success of the acceptance that it be quickly sold after acceptance has been effected. The dealer has been increasingly relied upon to effect a rapid distribution of the paper as it is created. Naturally, unless there is a rapid turnover in the market, the dealer may have to carry large amounts. This requires more capital than most dealers can afford, and hence some of the Reserve Banks have followed the practice of carrying a part of this load. The Banks take the paper for fifteen day periods under a re-purchase agreement, pending distribution.⁹ This has made it possible for the dealers to operate continuously on a much larger scale than would otherwise be the case, and it has meant much, therefore, in the upbuilding of the market.

EXTENT OF THE ACCEPTANCE MARKET

The principal market into which acceptances flow is, of course, New York. This has thrown a special burden on the New York Reserve Bank, but through allotments to other Reserve Banks this burden has been distributed to some extent.¹⁰ Purchasers of acceptances were at first only the larger banks, but today dealers have as clients in addition to many banks, corporations, firms and private individuals.¹¹ During the past year heavy purchases on foreign account have also been made.¹² Moreover, in some states

⁵ See *Sixth Annual Report of the Federal Reserve Board* covering operations for the year 1919, page 23.

⁶ Report of Federal Reserve agent, *Sixth Annual Report of the Federal Reserve Board*, page 319.

⁷ *Seventh Annual Report of the Federal Reserve Board*, page 52.

⁸ *Seventh Annual Report of the Federal Reserve Board*, page 52.

⁹ *Ibid.*, page 51.

¹⁰ *Ibid.*, page 51.

¹¹ *Ibid.*, page 50, p. 366.

¹² See Report Federal Reserve agent, New York District—*Seventh Annual Report of the Federal Reserve Board*, p. 382.

by act of legislature bankers' acceptances have been made eligible investments for savings banks and this promises a fruitful source of demand. The main development has naturally come in the larger industrial and commercial centers. The Board states that, as a rule, in the South, Southwest and certain parts of the West, member banks have only partially exercised their acceptance powers, while purchasers of acceptances are almost exclusively banks in the larger centers

of these districts.¹³ But it is reasonable to suppose that as time goes on the advantage of the acceptance as a liquid, short-time investment will be quite generally recognized and the scope of the market should be more nearly countrywide than it is now.

The general trend of the acceptance may be indicated by a few tables. Table I shows the acceptance liabilities of member banks at each controller's call since November, 1915.

Tables II and IIA show the Reserve

TABLE I. VOLUME OF MEMBER BANK ACCEPTANCES AS PER THE CONTROLLER'S CALL FOR THE SPECIFIED DATES ^a

(In thousands)

November 10, 1915.....	266
December 31, 1915.....	32,876
March 7, 1916.....	42,677
May 1, 1916.....	62,452
June 30, 1916.....	73,641
September 12, 1916.....	81,290
December 27, 1916.....	107,909
March 5, 1917.....	108,550
May 1, 1917.....	118,799
June 20, 1917.....	157,870
September 11, 1917.....	138,231
November 20, 1917.....	153,645
December 31, 1917.....	217,190
March 4, 1918.....	230,164
May 10, 1918.....	250,323
June 29, 1918.....	231,805
August 31, 1918.....	243,772
November 1, 1918.....	332,719
December 31, 1918.....	305,101
March 4, 1919.....	269,173
May 12, 1919.....	224,150
June 30, 1919.....	272,035
September 12, 1919.....	323,226
November 17, 1919.....	359,109
December 31, 1919.....	407,639
February 28, 1920.....	424,669
May 4, 1920.....	438,430
June 30, 1920.....	431,196
September 8, 1920.....	414,583
November 15, 1920.....	406,525
December 29, 1920.....	375,416
February 21, 1921.....	345,644
April 28, 1921.....	304,231
June 30, 1921.....	250,925

^a Specially prepared by the Division of Analysis and Research of the Federal Reserve Board.

¹³ See Report Federal Reserve agent, New York District—*Seventh Annual Report of the Federal Reserve Board*, p. 382.

TABLE II. FEDERAL RESERVE BANK DISCOUNTS AND PURCHASES OF TRADE AND BANKERS' ACCEPTANCES^b
(In thousands)

YEAR	DISCOUNTS		PURCHASES IN OPEN MARKET	
	Bankers	Trade	Bankers	Trade
1915.....	....	1,959	64,814	31
1916.....	....	5,212	369,762	16,333
1917.....	....	37,771	1,046,765	30,948
1918.....	19,940	187,373	1,748,503	61,036
1919.....	71,643	138,420	2,788,619	36,558
1920.....	187,162	192,157	3,143,737	74,627
1921-9 Mo.....	49,810	101,129	996,851	6,687

TABLE IIA. SAME DATA BY MONTHS FOR 1920 AND 1921 TO DATE

1920	DISCOUNTS		PURCHASES IN OPEN MARKET	
	Bankers	Trade	Bankers	Trade
January.....	17,226	16,520	299,746	2,706
February.....	28,611	11,001	296,959	3,349
March.....	31,534	23,383	298,459	4,901
April.....	28,172	15,296	240,704	6,890
May.....	15,254	16,541	270,498	3,739
June.....	9,431	13,938	261,333	24,419
July.....	7,069	13,457	209,296	10,168
August.....	5,490	14,011	247,438	12,270
September.....	8,103	17,160	255,858	2,131
October.....	10,354	19,389	280,162	1,670
November.....	13,275	15,143	230,832	1,008
December.....	9,643	16,318	252,452	1,376
Year.....	187,162	192,157	3,143,737	74,627
1921				
January.....	8,430	20,171	121,135	1,064
February.....	6,159	13,256	167,362	2,079
March.....	11,512	11,709	148,698	557
April.....	7,404	10,860	121,412	2,099
May.....	6,560	9,768	137,980	622
June.....	3,790	9,937	61,599	75
July.....	1,942	8,673	46,623	47
August.....	1,408	8,781	107,270	33
September.....	2,605	7,974	81,772	111
9 Months.....	69,810	101,129	996,851	6,687

^b Specially prepared by the Division of Analysis and Research of the Federal Reserve Board.

TABLE III. BILLS BOUGHT IN OPEN MARKET °

(In Thousands of Dollars)

Federal Reserve Bank	1917	1918	1919	1920	1921 (9 mos.)
Boston	86,481	194,158	360,784	304,415	....
New York	445,307	945,498	1,211,399	1,697,330	....
Philadelphia	70,710	77,686	14,049	41,232	....
Cleveland	51,007	122,800	261,750	294,602	....
Richmond	54,759	70,766	52,977	51,712	....
Atlanta	25,388	45,477	51,661	39,576	....
Chicago	61,142	122,787	292,012	345,021	....
St. Louis	22,788	26,096	87,503	36,020	....
Minneapolis	16,397	13,903	108,714	18,060	....
Kansas City	17,561	14,691	26,086	17,173	....
Dallas	9,743	25,024	12,415	8,348	....
San Francisco	48,018	150,653	345,827	364,845	....
Totals	909,301	1,809,539	2,825,177	3,218,364	....

° Yearly returns Seventh Annual Report Federal Reserve Board, p. 52.

Bank discounts and purchases of bankers' and trade acceptances for indicated periods.

Table III shows the purchases in the open market by or for the account of each Federal Reserve Bank during the years 1917-1920 included and for the first nine months of the present year.

FUTURE DEVELOPMENT THROUGH BANKERS' ACCEPTANCES

It will be observed that from the spring of 1920 down to the last quarter of 1921 the volume of operations declined. This was due primarily to the great decline in our foreign trade, but the collapse at home also exerted a considerable influence. Another notable circumstance is the specially large drop in trade acceptances as contrasted with bankers' acceptances. The experience with trade acceptances has not been particularly encouraging. In nature, the trade acceptance differs diametrically from the bankers' accept-

ance and experience seems to prove that it lends itself to serious abuse.¹⁴ Evils have been complained of also in connection with bankers' acceptances, but such evils can be handled through the banks more easily than trade acceptance abuses can be remedied through the more numerous and less amenable private business firms. The future development of the open market is thus likely to rest more and more completely on the bankers' acceptance, and a great impetus would be given to this development if in domestic business a credit procedure based on the bankers' acceptance were more widely employed.

¹⁴ The Federal Reserve agent of District No. 1 in his 1920 report to the Board says: "The development of the use of trade acceptance—at least the domestic trade acceptance—unlike that of the bankers' acceptances, does not appear to have been entirely satisfactory. That they have been misused there is little question, and for the most part the banks in the district do not feel any more favorably disposed, if as much so, to encourage their use than in the past.

The Efficiency of Credit

By O. M. W. SPRAGUE

Harvard University

A GOOD irrigation system and a perfect system of credit would exhibit strikingly similar characteristics. The supply of credit, as of water, would be abundant, produced at a minimum cost, and free from interruption or exhaustion. Adequate means of distribution would be developed to furnish the water in the one case and credit in the other to every part of the territory to be served. And then, to secure good results, judgment must needs be exercised in both cases: Unintelligent and lavish use of the water will be harmful to the crops and may exhaust the most abundant sources of supply. Similarly with credit, unrestrained use has an unfavorable effect upon industrial output, stimulates a rank growth of speculation and is the principal cause of extreme fluctuations in the general level of prices. Irrigation experience also teaches that extensions and improvements in one direction may be wasteful and even positively hazardous unless they are accompanied by balancing developments in other directions. This essential requirement, if a credit system is to develop in a satisfactory fashion, is commonly overlooked. The establishment and operation of the Reserve Banks has introduced many and important changes in our banking system. Whether that development has been a well balanced development is, in my judgment, the most searching and important question raised by our credit experience during the last six years.

MORE CREDIT AT LOWER COST

An increase in the supply of credit and a reduction in basic costs are definite results of the changes in our

banking arrangements brought about by the establishment and operation of the Reserve Banks. The reduction in reserve requirements for member banks and the concentration of those reserves in the Reserve Banks, where they become in turn the basis for further credit in the form of Federal Reserve notes and also of reserve balances, have greatly reduced the amount of gold or other reserve money required to support a given volume of credit. Estimates of the saving thus secured vary somewhat, but for our present purpose it is sufficient to note that all calculations agree in the conclusion that gold is now a basis for at least twice as much credit as in the period before the Reserve System was established.

A reduction in the amount of gold required to support a given volume of credit would be followed by a positive reduction in the cost of bank credit if the volume of credit was not enlarged. Less gold would then be used for banking purposes, and the surplus could be used in the arts or exported in payment for goods, services or securities. Again, insofar as additional credit might serve to increase production, a positive advantage would be derived from the reduction in reserve requirements. But manifestly the amount of additional credit that can exert a favorable influence upon production is small. A large increase in the supply of credit, if freely used, is a positive detriment to industry. Its effects are seen in rapidly advancing prices, an over-extended condition of business concerns generally, and widespread speculation, culminating in crises and followed by trade depression.

Leaving out of consideration the special case of the use of credit in financing the War, it is not easy to discover any positive gain that the country has realized from economy of gold which has been secured through the establishment of the Reserve System. So far, the results have been unfavorable. The additional credit was freely extended and we now are enduring the inevitable consequences. So far as the supply of credit is concerned, a repetition of this experience is entirely possible. Loan liquidation, always an incident of periods of depression and abnormal gold imports, is placing the banks in position to grant billions of additional credit as soon as an active demand develops.

A more certain gain from the Reserve System is the assurance that the flow of credit will not be interrupted through exhaustion of supply or by the working at cross purposes of the banks as happened in successive crises down to and including the crisis of 1907. This assurance that the flow of credit will not be interrupted in the future is not the result of the increase in the supply of credit. It could have been gained without any increase whatever in credit supply. The exhaustion of the lending power of the banks on future occasions of financial strain is altogether unlikely because the Reserve Banks recognize responsibility for the general credit situation in this regard, and regularly hold in reserve, power to extend credit on an extensive scale to be used freely in case of emergency. Through the Reserve System the banks of the country have also become closely knit together for settlement purposes, and there is therefore no longer reason to fear that they will suspend payments on future occasions of financial strain. In short, that a future crisis will degenerate into a panic is no longer one of the hazards

to which the conduct of business is subject.

THE DISTRIBUTION OF CREDIT

Turning now to the distribution of credit, the Reserve System is found to have made considerable, though by no means fundamental, changes. On account of the almost complete absence of branch banking in the United States, credit is far less fluid in this country than elsewhere. The supply of credit in each community, and especially in the smaller ones, is in large measure limited to the resources of the local banks eked out by such amounts as they may choose or are able to borrow from banks in other places. Through the Reserve Banks the borrowing facilities of many local banks have been materially enlarged. But it still remains true that credit is far less fluid than in the countries where banking is conducted by banks operating regional or nation-wide systems of branches. This is the price, not necessarily too high a price, that we pay for our system of independent local banks.

It is in the employment of credit that the least change has followed the establishment of the Reserve System. Aside from certain general restrictions, each local bank, and properly, is free to employ its funds as may seem to it advisable. The Federal Reserve Act widened the scope of the lending activities of the banks somewhat by authorizing them to accept a limited range of bills of exchange and to lend a moderate amount on mortgage security. The Act also aimed at making commercial loans more attractive by excluding other loans, with the exception of those secured by United States government obligations, from rediscount at the Reserve Banks.

These changes in the law and modifications in banking practice are im-

portant, but were not expected to change materially the general character of the assets of the banks.

MORE CREDIT WITHOUT NEW USES

This, then, is the gist of the situation resulting from the establishment and operation of the Federal Reserve System: an enormous increase in the available supply of credit and no considerable new uses for this credit. No new uses for credit are needed to absorb this additional supply. The bulk of this additional credit cannot be employed with advantage to the community, but only to its positive disadvantage. Credit serves a productive purpose by facilitating the transfer of capital assets and of goods in process of production and marketing. But when business is active, and people are already fully employed, additional doses of credit do not result in a larger physical output of goods. Additional credit then subjects all industry to the unhealthful influence of protracted advance in prices. The demand for credit grows more and more intense and is practically without limit. At such times, moreover, the thousands of competing banks are quite incapable of imposing restraint upon borrowers so long as they possess unused lending power. The fear that desirable depositors will go elsewhere is strong and warps judgment. In these circumstances, cautions and warnings from the Reserve Banks have little effect; they were not heeded in 1919.

The Reserve Banks now have a reserve which is nearly 75 per cent of their demand liabilities, with prospects good for a still higher ratio before conditions become favorable for a period of renewed business activity. Rediscounts to the amount of about \$3,000,000,000 could be granted and still, in the absence of gold exports,—an unlikely event—the Reserve Banks would be

well within legal reserve requirements. On the basis of the credits secured through these rediscounts the commercial banks of the country would be able to extend loans by from two to three times the amount discounted. In other words, it may be conservatively estimated that there is at least ten billion dollars of unused bank credit in the United States at the present time.

THE DISCOUNT RATE AND THE PRICE LEVEL

In the Federal Reserve System we have an agency which has the power to make a vast increase in the supply of credit for the bulk of which there is only one influence that will create an intense demand. That influence is rising prices. A moderate advance in prices may indeed have a beneficial effect on production after a period of depression, but a prolonged upward swing of prices creates speculative conditions, stimulates speculative activities, and tends to bring all but the most cautious business concerns into an over-extended condition. Such a prolonged upward movement of prices with all its disastrous consequences is hardly possible without large use of the credit resources of the Reserve Banks. It would seem, therefore, that the effect of advancing prices on the general business situation should be a factor of the first importance in shaping the discount policy of the Reserve Banks, assuming more and more importance as a period of business activity continues. The management of the Reserve Banks is, however, by no means inclined to this view of the matter. Responsible officers of the banks and also members of the Federal Reserve Board roundly assert that they are not concerned with the course of prices and that in the determination

of discount policies the price situation is not a definite factor.

The attitude of the management of the Reserve Banks in regard to responsibility for the course of prices forcibly recalls an experience of the most ancient of central banks. For more than a generation, the directors of the Bank of England stoutly insisted that the Bank was no more responsible for the situation in time of crisis than any other London bank. Finally, largely as a result of repeated onslaughts by Bagehot in *The Economist*—given more permanent form in *Lombard Street*—the policy of the Bank was definitely reversed and the course that has become universal practice in handling crises was adopted.

There is unhappily little doubt that the Reserve System has lost somewhat in general public estimation during the

last two years. It bears much of the burden of the consequences of the unwise low discount policy which the Treasury Department unwisely insisted must be continued for more than a year after the Armistice. The wisdom subsequently manifested in refusing to give way to demands for additional credit, which would have made a bad situation worse, could not be expected to make a strong appeal to the people at large. For the future, if not prevention, at least clear evidence that the Reserve System has not contributed to the creation of the intense activity that breeds depression is a reasonable demand on the part of the public. This expectation will not be realized if large additional supplies of credit are furnished by the Reserve Banks at times when prices are rising rapidly and persistently.

Book Department

BALDWIN, D. C. *Capital Control in New York (State)*. Pp. xxiv, 225. Price, \$3.00. New York: McDevitt-Wilson's Inc., 1921.

Up to a few years ago, many public utilities had the habit of claiming that "a contract was a contract," while, lately, a large part of the consuming public has been inclined to adopt the slogan as its own. But there has of late been evident a growing realization on the part of the public that while revenge may be sweet, it has its limitations as a steady diet. We can exist without the utilities, but we cannot "live" without them; not only are they indispensable to our present standard of comfort, but they are already lagging far behind our demands upon them. The utilities, on the other hand, cannot serve us without a sound basis of credit, the foundation of which is a budget which not only balances, but allows for the necessary reserve and emergency funds. The result of the harrowing experiences of the last five years is that now, after the pendulum has been allowed to swing both ways, both the utility corporations and the public have experienced a deeper realization than ever before of the mutual benefit to be derived from the proper governmental control of the issuance of securities.

In view of the more widespread realization of this fact brought about by recent events, a study of the regulation of security-issues accomplished in the State of New York is welcome at this time. New York was one of the first of our commonwealths to inaugurate effective control in this matter, and, being the wealthiest and most populous of the states, the problems involved were especially numerous and complex; in fact, the First District Commission, with jurisdiction over the city of Greater New York, had to cope with problems that were unique and without a parallel, either in this country or in Europe.

The author of this monograph has traced the growth of New York's administrative regulation of security-issues from the first crude and nominal beginnings in the early fifties of the last century to the middle of 1918, since which time little of constructive

significance has been accomplished. Really effective control of securities in the State of New York dates from the going into effect of the Public Service Commissions Law (July 1, 1907). This act was fathered by Governor Hughes and its final enactment was due almost wholly to his persistent efforts. The passage of this act marked an epoch in public utility regulation. For years the control of the issuance of securities by regulative bodies had been recognized as the key to all the other aspects of utility regulation, and this act, creating the Public Service Commissions of the First and Second Districts, respectively, not only granted them power to compel the rendering of adequate service to the public, but also clothed them with authority to approve or reject proposed issues of stocks and bonds. In the ten years following 1907, the New York Commissions accomplished a vast amount of pioneer work with the aim of securing as conservative capitalizations as were possible in the face of the chaotic conditions with which they were confronted, to the end that the investing public might be protected without the necessity of exploiting the consuming public either through the furnishing of inadequate service or the charging of exorbitant rates.

The principles worked out by the Commissions during this period, and subsequently upheld or modified by the courts, make an interesting study both from the standpoint of governmental authority and of investment protection. In the further elaboration of sound governmental control of security-issues, which recent experience has shown to be so necessary for all parties concerned, these principles will be regarded as among the most valuable precedents available.

HAYES, EDWARD CARY. *Sociology and Ethics*. Pp. viii, 354. Price, \$3.00 net. New York: D. Appleton and Company, 1921.

This book may be said to be a footnote to a paragraph in the author's *Introduction to Sociology*, published five years ago, in

which he wrote (page 4): "Sociology aims at nothing less than the transfer of ethics from the domain of speculative philosophy to the domain of objective science." The book is essentially a plea for an objective scientific ethics—for a sociology which is an objective scientific ethics.

Ethical theory, according to Dr. Hayes, who is professor of Sociology at the University of Illinois and now president of the American Sociological Society, has passed through the "three stages of progress" of Comte's famous classification. It first had its theological stage, in which the moral law was regarded as the voice of God in the soul of man. Then followed the metaphysical period, with the concept of moral law as an abstraction emanating from the "Ding an Sich." Finally, it is in process of entering the "scientific" stage, in which rightness and goodness of conduct will be determined by scientific study of the realities of life, wherein the values of life will be determined objectively.

It is a thought-provoking book. Sociologists who have emphasized the pure rather than the applied side of their subject will find their practice sharply challenged. Historical ethics is reminded of its a priori assumptions and preoccupations with an abstract individualism. Theologians and moralists, alarmed by the deterministic implications of social science, are reassured, such implications being reconciled in their traditional views. Although the book is marred by a deal of repetition, obviously the result of intermittent effort scattered over a number of years, it is a searching but optimistic analysis that will repay careful perusal.

JAMES H. S. BOSSARD.

University of Pennsylvania.

BARKER, J. ELLIS: *Modern Germany, Her Political and Economic Problems.* Pp. vii, 496. Price, \$6.00. E. P. Dutton & Co., 1921.

This is the sixth edition "entirely rewritten and very greatly enlarged." The writer is a widely known and very able authority, whose writings in the leading British journals have attracted wide attention. In this edition he had condensed

much that appeared in earlier editions and included seven new chapters.

LIPPINCOTT, ISAAC: *Economic Development of the United States.* Pp. xvi, 691. Price, \$3.50. New York: D. Appleton and Company, 1921.

One of the greatest needs of American students has been for a suitable economic history of the United States. Perhaps time is necessary for the scholars of any country to produce such a work because of all that is involved. At any rate, for that reason or for some other, there has been a dearth of satisfactory studies. Even the monographic literature has been comparatively meager.

Professor Lippincott has taken a great step in advance in his treatment. As he observes in the introduction, he has not limited himself to a mere record of industrial progress, but has endeavored to bring together causes and results. After an introductory section on factors in economic development, the treatment is by periods through 1914 with a concluding chapter on the war period from 1914 to 1920. Emphasis is well distributed over the different periods and a common defect of such studies—over-emphasis on the earlier years—seems to have been avoided. The distribution of space between different phases of development may, however, be more open to criticism. For the period from 1860 to 1914 only two chapters are given to the extractive industries and two to agriculture, a total of 89 pages, while to manufactures and commerce are given eight chapters or 220 pages. We are still nearly fifty per cent a rural population. This fact and the acute problems presented by our rural conditions would seem to warrant a different emphasis.

The volume is the best study yet available, both for private reading and for the classroom, and will doubtless find a wide use.

BOWMAN, ISAAH, Ph.D. *The New World.* Pp. vii, 632. Price, \$6.00. New York: World Book Company, 1921.

The past few months have been months of intensive education of the American people in affairs international. The conclusion

of the World War with its remaking of maps and its reordering of industries and of markets has made this world a very small one. This book gives a wealth of world facts each citizen should have at his disposal.

The book is a geography replete with maps reliable and up to date; but it is more than a geography. The book is a history in that the important epochs in the historical, industrial, social and racial developments of each of the countries are noted; but it is more than a history: It is a treatise of world-wide industry in that it gives the location and output of coal mines, and iron mines and other natural resources; it locates the world's industries, it outlines the world's waterways, pictures the world's routes for trade, and gives the industrial backbone of every nation. And yet it is more than a book on industry. It is also replete with matters political in their development and social in their origin. And yet it is something more than a source book on the leading social and industrial facts of the nations of the earth. The book is a mine of information as broad as human life itself and this information is concisely put and is accurate in its scholarship. Only one in close touch with the extensive sources of the American Geographical Society, and in close touch with all the information open to government officials preparatory to the many recent world conferences, could have had access to the diversified sources from which the knowledge in this volume has come.

The book discusses the problems of imperial Britain, the political and colonial aims of France, Belgium as the crossroads of Europe, the Italian situation, the democratic drift in Spain, Portugal's colonial policies, transportation and industrial problems of Switzerland, the Scandinavian countries and Holland, the problems of the

German people, the national existence of Austria, the new Hungary, the domain of the Czecho-Slovaks, Jugo-Slavia and the Adriatic, the new frontiers of Rumania, the mountaineers of Albania, the reunited Greek lands, the borderlands of Poland, the development of Lithuania, land tenure and trade outlets in Esthonia and Latvia, the geographical setting and the problems of Finland, the ethnic groups of the Russian Empire with the background of the Russian disorder, Constantinople as a European thoroughfare, the Jewish homeland—Palestine, Anatolia—the last remnant of the Turkish Empire, the Transcaucasian peoples, the interests of Persia in their relation to British industry, the unsettled land of the Nomad in inner Asia, the raw materials in the Far East and their control, the expansion of Japan toward the mainland of Asia, the conflict of Chinese and Japanese interests, the Pacific realm and Australia, the past and present status of colonies, the European powers in Africa, boundary disputes in Latin America and the relations between Latin America and the United States.

Such a recital of the contents of the book gives some idea as to its value as a reference book at these times. Not the least valuable part of the book is its carefully prepared bibliography covering each of the points mentioned above and many, many others. In an Appendix is given a list of dates and names of principal treaties and agreements from 1814 to 1920. In addition to the maps are many choice illustrations reflecting the natural and industrial activities of many of the leading countries of the world. The book is a credit not only to the author but to American scholarship in general.

CLYDE L. KING.

University of Pennsylvania.

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Editor in Charge of this Supplement

DR. WENZEL GLEISPACH

*Professor of Jurisprudence and Political Science,
University of Vienna*



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FOREWORD

Present Day Social and Industrial Conditions in Austria

By DR. FRIEDRICH HERTZ

Vienna

THE fate of Austria has aroused world-wide sympathy and the unparalleled relief-movement organized in so many countries, is, perhaps, the most hopeful symptom of the revival of the spirit of solidarity and brotherhood in the world. America has taken the lead in this movement and her generous efforts have actually saved Austria's children and have filled the hearts of the Austrian people with gratitude and admiration. Yet even charity must at last come to an end. The question therefore arises whether the present Republic of Austria, as constituted by the Peace Treaty, is capable of existing as a separate unit at all; whether it possesses the basis for living on the products of its own labor.

Austrian public opinion at present seems to despair of its possibility. For plebiscites, organized in several Austrian provinces, gave an overwhelming majority for fusion with Germany. Also, immediately after the foundation of the Republic, the Austrian National Assembly pronounced itself for such a union. But all these declarations encountered the veto of the Allies, especially of France, which threatened Austria with the gravest measures if she did not check the movement, though the Peace Treaty expressly admits the possibility of a fusion with the consent of the League of Nations. The Austrian plebiscites had no aim other than to create a basis for an appeal to the League of Nations by ascer-

taining that the people really desired a fusion with Germany.

The motives of this movement are to a great extent economic though, of course, the general desire for national unification also plays a certain part. A glance at the rates of exchange or prices, suffices to prove that Germany is by far better off than Austria, in spite of all the schemes for the economic rehabilitation of Austria, drawn up by the Allies. Up till now (July, 1921) very little has come of all these schemes and Austrian public opinion has lost nearly all confidence in this respect. On the other hand the German mark, which in pre-war days was 1.18 kronen, at present is equivalent to almost 11 kronen! The main reason for this disastrous depreciation of the currency consists in the disproportion between imports and exports, which forces the government continually to increase the banknote circulation in order to pay for the necessary imports of food, coal, and raw materials. Consequently, the Austrian krone has gone down to much less than the hundredth part of its pre-war standard and the budget shows a steadily increasing deficit.

Now the question is whether this deficit in the trade balance and in the budget is temporary or permanent; in other words, whether Austria possesses enough productive powers to pay for her supplies from abroad. In Austria opinions on this point are divided but in most cases the answer is in the negative. The fact is emphasized that by

the Peace Treaty Austria has lost most of her natural wealth; that her former coal riches, especially, and most of the fertile soil have been awarded almost totally to other countries, and that nothing has been left to Austria but the barren rocks of the Alps and a huge capital of two million inhabitants, the former administrative center of a big empire, now doomed to unproductiveness. It has been maintained that the population of Vienna consists mainly of officials, commercial and financial middlemen, artists, pleasure-seekers and similar elements, while industrial production in former Austria was mostly carried on in Czecho-Slovakia. Such statements, however, are exaggerations. To a great extent their underlying motive is political propaganda, and they are employed especially by certain supporters of the fusion with Germany to underrate the productive capacity of Austria in order to prove that the union is the only way left. On the other hand, these pan-German arguments are also used by Czech propagandists who represent Vienna as a parasite which has always sponged on the toil of the Slavic provinces and which therefore must be eliminated by a system of trade restrictions.

The only truth in all these statements is that the natural resources of present Austria are very restricted indeed. They consist mainly in forests, iron ore, salt and water powers. Of the total subterranean coal wealth of former Austria, only one-half of one per cent came to the present Austrian Republic, all the rest being divided between Czecho-Slovakia and Poland.¹ Then, too, the agricultural soil of Austria cannot be compared with the rich plains of Jugo-Slavia, Poland or Czecho-Slova-

kia. It is also true that Austria has lost a very great part of her industries, developed, financed and owned by Austrian manufacturers in the German parts of Czecho-Slovakia. But on the other hand, Austria even now possesses great industries, mainly concentrated in and around Vienna. Probably most Austrians would be highly surprised by the statement that present Austria comprises almost the same number of factories and factory workers as Bohemia, though Bohemia has half a million inhabitants more. Yet it is an indisputable fact as can easily be gathered from pre-war statistics.

In former Austria, every industrial worker employed in a workshop with motor power had to be insured against accident. In 1913 the number of such insured industrial workers amounted to 745,289 in Bohemia and to 740,000 in the present territory of Austria. The number of factories (workshops with motor power and more than twenty workmen) amounted in 1919 to 6,283 in present Austria, while in Bohemia there were 6,544 factories in 1915. These are the latest figures available. Of course, Bohemia had a greater mining industry (64,568 miners against 29,308 in Austria) and her domestic industries, not included in the preceding statistics, were more extensive than those of Austria. Moreover, Bohemia has the great advantage of a much more fertile soil and a very high level of agricultural development as compared with Austria. But these advantages of Bohemia are more than outweighed by the enormous transit, trade and banking system of Austria, by her great capital investments in all the territories of the former empire and by the importance of Vienna as a center of science, medicine, technics, art, music and pleasure, attracting hundreds of thousands of foreigners from all parts of the world.

¹ The actual output is larger than the percentage quoted but the Austrian coal mines will be exhausted in a rather short time and the coal (lignite) is of very poor quality.

The greatest drawback for Austria is that her agriculture, which is mainly in the hands of small peasants, is not on the same level as her industries. Yet Austria possesses 50 per cent more productive soil per head than does Switzerland, and it can easily be proved that Austria could produce the greatest part of her food requirements. This, however, cannot be achieved in a short time because the peasants can only be educated gradually and slowly. Moreover, the development of Alpine agriculture according to the Swiss model demands large capital and many years.

Also, the view that unproductive elements form a much greater part of the population in Austria than elsewhere is quite unfounded. Before the war in the present territory of Austria 53 per cent of the total population were employed in different occupations and this figure surpassed every country in Europe and was equalled only by France. Especially great was the percentage of female workers. The number of officials and professionals (lawyers, teachers, etc.) in 1910 amounted to 7.29 per cent of the occupied population in Austria; to 8.2 per cent, in France; 6.4 per cent, in England; 6.2 per cent, in Germany and 6.1 per cent, in Holland. This percentage of officials would certainly seem too numerous for present impoverished Austria, but it must be borne in mind that the figures usually quoted comprise all the railwaymen and workers in state mines and factories (salt and tobacco monopolies, etc.). The greatest part of these so-called officials are therefore manual workers. If railway employes are excluded, the number of state officials (including teachers and law officials) forms about six-tenths of one per cent of the population.

It is possible, therefore, that Austria possesses enough productive forces to maintain herself, provided that she

were really in a condition to use these means to their full extent. If the plight of Vienna and the ruin of Austrian finances has startled the world, the reason consists in the fact that productivity was paralyzed for a very long time and even now is far from being normal.

Present Austria produces comparatively but little coal, raw materials and food and she must buy these products from the neighboring states with industrial products. Therefore, Austria more than most other states absolutely requires free trade both for imports and exports. Long before Germany was united in a customs union, old Austria had already formed an economic unit without internal barriers (since 1773) and all parts of the big empire were economically interdependent. This economic unity was broken up by the Peace Treaty in such a way that new Austria was absolutely at the mercy of her neighbors who believed that their interests would be greatly furthered by a system of economic seclusion. This belief, however, proved entirely wrong. The disruption of the monetary union by Jugo-Slavia and Czecho-Slovakia not only ruined Austrian currency, but also did great harm to the monetary value of the states themselves. While after the war the old Austrian currency was still quoted about 30 Swiss francs for 100 kronen, this figure, after the stamping of the bank notes, went down to about 4 francs for Czecho-Slovakia, and even now, after the lapse of three years, stands below 8 francs. The same happened in all other states which believed that the monetary separation from Austria would greatly improve their own currency.

The same belief led also to a sort of mutual commercial blockade among all the Succession States of Austria-Hungary. Of course the underlying ideas of this new mercantilism were, more or

less, to be found everywhere in Europe; they were but the war spirit applied to economics. Everywhere, states (and even provinces or districts within each state) endeavored to keep their food and other vital productions as much as possible for themselves, and therefore restricted exports. Everywhere, the tendency was also to restrict imports of luxuries and other "unnecessary" things in order to protect the rate of exchange; and, lastly, everywhere, traffic and travelling generally were subjected to many regulations and restrictions, either in order to secure the working of the internal distribution, the control of food, coal and raw materials introduced during the war or to conform to the Peace Treaty.²

But in the case of the Austro-Hungarian Succession States, the consequences of this system were the more disastrous as they had formed an economic unit for many centuries, and as very often the economic isolation was still aggravated by national animosities.

Most critical was the situation at Vienna, because it was most helpless and most exposed not only to national jealousies directed against the former capital itself but also to economic reactions springing from differences among neighbors. Whenever Poles and Czechs, or Poles and Germans, or Hungarians, or Czechs, or Italians and Jugo-Slavs were quarrelling about coal territories, or a province or a seaport, the reaction was felt in Vienna, because of her central position, and immediately

coal and food supplies were stopped either through the suspension of railway traffic or through other extraordinary measures. Moreover, every state possessing food was willing to sell it only against "sound money" or against goods, not against paper money. But how could Vienna pay in sound money since the disruption of the monetary union had brought about a total breakdown of the Austrian currency, and how could her industries produce, since the coal supply from Czecho-Slovakia and Silesia was strangled to an entirely insufficient minimum? In 1919 the factories of Austria could work only at a rate of about 25 per cent because the coal producing states absolutely refused to deliver more coal and the people of Vienna had to cut down trees in the surrounding woods and drag them home on their backs in order to cook their scanty meals. In the following year the coal output in Czecho-Slovakia increased to 86 per cent of the peace production, yet Austria received only 40 per cent, though most of the Czecho-Slovak mines are owned by Austrians who would willingly have sent coal if the Czech Government had only allowed it. At last the impoverishment of Austria led to a severe crisis in Czecho-Slovakia whose industries had always sold most of their products to Vienna. The consequence was a closing down of factories in Czecho-Slovakia and a setting free of coal for Austria which, however, in the meantime had been forced to procure coal from Holland!

In the same way Austria had during a long time to buy grain, flour and meat in America, Manchuria, etc., and even sugar in Java, instead of getting them from her neighbors who had an abundance of these foodstuffs. Generally in all states, including Austria, exports were restricted not only where there was a scarcity, but also when a great

² On the one hand, the economic system of the Peace Treaty forcibly increases exports for Reparation, etc., and at the same time keeps down wages in Germany and Austria. The natural consequence is that every other state tries to shut itself off against these forced exports. On the other hand Germany and Austria had to impose enormous new taxes and this made it necessary too to control exports in order to prevent *Vermögensflucht* (smuggling out of values).

surplus was available for export, as in the case of sugar and coal in Czecho-Slovakia, or in the case of wood and paper in Austria and of cattle and grain in Jugo-Slavia. Every state tried to control the export of its chief products in order to exact greater advantages from neighbors dependent on these supplies. But the result of this policy was very often the exact opposite of that expected! Indeed, Czecho-Slovakia which developed this policy to the highest pitch, through it lost the Austrian market for many of her products. For example, Czecho-Slovakia restricted the export of textile goods and iron to Vienna with the effect that the Italians conquered the Austrian market in cotton goods and the Germans, the iron market to the detriment of Czecho-Slovakia. The same policy of state interference was also applied to imports, and Austria suffered severely through the sudden seclusion of many of her traditional markets. Instead of protective tariffs, a general prohibition of all imports has been decreed and any imports (as well as exports) require special licenses.

Austria herself at the beginning followed a much freer trade policy than her neighbors, but gradually she, too, began to increase her trade restrictions, either because of retaliation or for purposes of taxation of luxury imports. Yet the whole system has already over-lived itself. Conviction has become general in all the Succession States that trade and traffic must be relieved of some of their fetters and that the system of prohibitions and special licenses must give way to the principle of comparatively free trade under a revised customs tariff.

Under this practical blockade, Vienna had to suffer appallingly but already the beginning of freer traffic has created a surprising revival in trade at the Capital. Moreover, the very difficul-

ties arising from the economic disruption have, on the other hand, contributed to very remarkable developments in Vienna. The countless barriers, discrepancies and frictions between the new states made it more necessary than ever to have a central point for coping with these new fangled absurdities. Every traveller must now continually change his money because he has to pass a new frontier every few hours. The trader cannot send money freely to any place without the assistance of a bank, as he formerly did, and if he has to travel, passport and other difficulties cause enormous waste of time and force. Under such circumstances, Vienna has become a gigantic clearing house, central market and meeting point for all the Succession States. An incredible number of new banks and commercial houses have sprung up and their gorgeous premises form a new feature in the streets of the city. The Vienna banks are dealing every day with fantastic amounts of foreign exchanges and the stock exchange is seething with wild speculation for the account of all new states. The very multitude of trade and traffic difficulties which nobody can keep in mind induces foreign merchants to consign their goods to Vienna which serves as a sort of free port and as a distributing center for the whole of former Austria-Hungary and Eastern Europe. In consequence of so many difficulties, many more brains and hands are necessary for handling a certain volume of trade and this is one of the main reasons for the astounding multiplication of new firms in Vienna.

All these evolutions have created an atmosphere of bustling commercial activity, of reckless gambling and extravagant luxury. The people connected with it are mostly foreigners and the Viennese are very bitter against them, calling them "profiteers"

(Schieber). Yet their doings are to some extent an inevitable consequence of the great catastrophe of war. Good and evil are inextricably mixed up in this development, yet superficial observers usually overlook its less favorable side; they forget that this whole buoyant prosperity is in many respects more apparent and artificial than real, and that, in the main, a relatively small class is profiting by it. For, in the last resort, all these thousands of new traders and gamblers with their huge staff of clerks and their appendix of parasites are, to a great extent, not a symptom of increased production or trade. They owe their existence partly to the disruption of the former economic unity and the paralyzing effects of government restrictions, which can be overcome only by the often unscrupulous practices of these adventurers, and partly to the impoverishment of Austria by such adventurers who with their "sound money" buy up the remnants of Austria's wealth. Somebody must at last pay for this multitude of new businesses, and this darker side is neglected by most of the foreign visitors walking through the luxurious streets near the "Ring."

Yet the fact remains that in the last year a remarkable improvement has taken place in Austria, in spite of the fact that the rate of exchange has dropped about one-fifth during this time.³ The working classes have been able to increase their wages considerably though they are still far below the peace parity. But the situation of the intellectual middle classes and of old people, no longer able to work, has grown still worse. A higher official or university professor, for example, now receives about 12 times his pre-war

salary, and this will soon be increased to about 20 times the amount, but prices have gone up at least from 100 to 150 times as compared with pre-war prices. There are many scholars and retired high functionaries who have taken to manual professions or other very subordinate positions; old admirals or generals have become cobblers and their wives and daughters are toiling day and night with needlework. Many families can keep two ends together only by selling their furniture, trinkets or works of art. Of course this condition must soon come to an end.

The condition of the middle classes however, will be affected for the worse by the progressing abandonment of state control over food. The system of selling food rations to the people below the cost price paid by the state was quite unavoidable as long as the productive forces of the towns were paralyzed by coal scarcity and other hindrances. On the other hand, the state subsidies for this purpose have ruined the budget, and the currency and maximum prices have contributed to lame agricultural production. Therefore a radical change is about to be carried out, but it will certainly cause new sufferings to the classes which are least organized and least able to adapt their income to rising prices, viz., the intellectual workers.

It is generally recognized that any real economic rehabilitation of Austria must begin with the stabilization of the monetary value. The rapid fluctuations in the exchange are seriously impeding solid trade and fostering speculation. Therefore the different schemes for restoring Austria's economic life have all taken this as a starting point. At present the League of Nations is considering such a plan and there is no doubt about its earnest desire to carry it through. Conferences are to be held at the same time between

³ In July, 1920 the quotation in Vienna for 1 £ was 600 kronen and for 1 dollar 150 kronen, while a year later the £ was over 3,000 and the dollar over 800 kronen.

all the Succession States for the settlement of outstanding economic questions and the abandonment of trade restrictions. This excellent scheme is due mainly to the endeavors of the former American Representative on the Reparation Commission, Colonel Smith. Some minor questions have already been settled in this way, but unfortunately most new states seem rather reluctant to follow a policy of economic solidarity and coöperation because they are afraid that this would infringe upon their sovereignty. Austrians, generally, deeply regret that America has withdrawn from the Reparation Commission and that apart from its most magnanimous relief measures the United States seems to be disinterested as regards the economic consequences of the disruption of Austria which was mainly brought about by President Wilson's policy.⁴

One great asset in Austria's future development is the total absence of tendencies dangerous to external and internal peace. Most European countries are at present agitated by the mad convulsions of nationalism and communism. In Germany, Italy, Hungary, etc., civil war was or is still raging, and red and white terrorists are outdoing one another in bloodshed and atrocities. In Austria the whole revolution from an old monarchy to a new republic has passed off quietly. Austria is the only country, indeed, where communism is almost non-existent; at the general elections not even 1 per

⁴ It is, however, unfounded to blame the principle of self-determination as is often done in American papers. Not the principle but the fact that it has been disregarded has caused the present economic situation and political unrest. According to this principle the thirty-nine million Germans, annexed by Czecho-Slovakia, would have remained united with Austria and since their territory comprises the greatest coal mines and industries Austria would never have been paralyzed in her productivity and would not have needed any relief whatever.

cent of the votes were cast for the communists and they have not a single member in Parliament. Even the nationalists polled only a small number of votes (13 per cent), and these of a rather mild type if compared with the Pan-Germans in Germany or the Fascisti in Italy. Obviously, the Austrian character is averse to all forms of violence. The two great parties are: 1. The Christian Socialists, who are similar to the German Centre party, and chiefly composed of small peasants and artisans. They polled 43.5 per cent of all votes. 2. The Social Democrats (35.5 per cent), who are moderate Socialists. At present a non-party government is in power, formed of neutral officials and mainly supported by the Christian Socialists. In external politics, Austria pursues a policy of strictest neutrality and good relations to all states.

Vienna has always been a very international city. From earliest times two of the greatest European commercial highways have crossed it. Vienna has also been the center of a great international Empire for many centuries. Nowhere else in Europe do so many cultural elements from different nations flow together, and this very confluence has formed the Viennese character with a certain instinctive tolerance and broadmindedness. There is no aggressiveness in the Austrian mind and the people, certainly, never had the slightest suspicion of the criminal folly of those few diplomats who kindled the War in 1914. Also, the Austrian character does not lack energy to the extent that is so often supposed. But what is really wanting, just now more than ever, is self-confidence. Quite otherwise from the inhabitants of Germany, Austrians were rather used to underrate their own economic efficiency, and their local patriotism satisfied itself, rather, with stressing cultural achieve-

ments. Even before the war it had been a quite general tendency in Austria to compare the economic development of Germany with that of Austria in a manner very derogatory to the latter. Indeed, it was a great surprise to Austrian economists when I proved, in a book published in 1918, that in the ten years before the war Austrian industries had increased in exactly the same proportion as had the industries of Germany.⁵ Now the whole development since the breakdown of old Austria has still greatly increased the lack of confidence in the future. The absolute dependency of Austria on her neighbors as regards food, coal and raw materials, other restrictions in the Peace Treaty and, finally, the failure of so many well-meant schemes of the Allies for the economic restoration, have created a wide-spread feeling of despondency.

Therefore economic reconstruction requires a psychological change as well. It is necessary to diminish the abnormal dependency of Austria on her neighbors and to make her more self-contained by developing agriculture, opening new coal mines and harnessing water powers. A project of greatest importance for Austria has just been started in Germany, namely the construction of a ship canal between the Rhine and the Danube. This great work will, of course, take a long time but its accomplishment will give Vienna free access to the North Sea, and increase traffic on the Danube enormous-

ly. The difficulty with the Danube always has been that while most transports went up the river, return freights were lacking. But after the completion of the ship canal it will be possible to ship all raw materials, food and coal direct from Rotterdam down the Danube to Vienna, and to the other Danube ports which in return will send their products up the river.

Many other excellent schemes, too, have been drawn up for increasing productivity and enabling Austria to live on her labor. But it must be realized that all these plans require great outlay of capital and a long period of time, and that the whole economic organism of Austria has been exhausted to the utmost during the years of the War and still further through the economic war after the War. The particular conditions of Austria render the execution of great schemes and reforms most difficult, and the constantly progressing financial ruin of Austria has up till now justified the pessimism dominating public opinion.

Finally, it is important beyond all that the still pending questions connected with the Peace Treaty should be settled as soon as possible. The uncertainty as to how these outstanding problems will be solved is making for much distrust of the future. Also the question of reparations, though it does not seem to have much practical bearing, ought not to be left open. Only such a general settlement will restore the confidence of foreign capitalists in Austria's future, and will give hope to the Austrians themselves that their efforts for working out their own salvation will not be in vain.

⁵ Cf. Dr. Fr. Hertz, *Die Produktionsgrundlagen der österreichischen Industrie vor und nach dem Kriege, insbesondere im Vergleich mit Deutschland* (Verlag für Fachliteratur, Wien) 6th Edition, 1918.

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CLYDE L. KING,
Editor.



CHAPTER I

The Population of the Austrian Republic

By DR. WILHELM WINKLER

Hofsekretär of the Central Commission for Statistics and Privatdocent for Statistics
at the University of Vienna

THE former Austro-Hungarian Monarchy has fallen a victim to the working of the principle of nationality according to which political boundaries and those of language communities should be identical. It may, therefore, not seem unexpedient to begin a contemplation of the resident population in one of its newly formed states with a review of the distribution of the inhabitants of the old Danubian Monarchy according to their language.¹

A CLASSIFICATION OF THE POPULATION OF THE FORMER DANUBIAN MONARCHY BY LANGUAGE *

	AUSTRIA		HUNGARY		BOSNIA AND HERZEGOVINA		AUSTRO-HUNGARIAN MONARCHY	
	<i>Absolute numbers</i>	<i>Per- centage</i>	<i>Absolute numbers</i>	<i>Per- centage</i>	<i>Absolute numbers</i>	<i>Per- centage</i>	<i>Absolute numbers</i>	<i>Per- centage</i>
Germans . . .	9,950,678	34.83	2,037,435	9.75	22,968	1.21	12,011,081	23.39
Magyars . . .	10,899	0.04	10,050,575	48.12	6,443	0.34	10,067,917	19.61
Czechs . . .	6,435,532	22.52	.....	.....	7,045	0.37	6,442,577	12.54
Slovakians ^b	^b	^b	1,967,970	9.42	482	0.03	1,968,452	3.83
Poles	4,965,667	17.38	^c	^c	10,975	0.58	4,976,642	9.69
Ukrainians . .	3,518,882	12.32	472,587	2.26	7,431	0.39	3,998,900	7.79
Slovenians . .	1,253,148	4.39	^c	^c	3,108	0.16	1,256,256	2.45
Croatians } .	783,010	2.74	1,833,162	8.78	1,822,564	96.02	5,545,207	10.80
Serbians }			1,106,471	5.30				
Roumanians	275,088	0.96	2,949,032	14.12	608	0.03	3,224,728	6.28
Italians and Ladinians	768,592	2.69	^c	^c	2,462	0.13	771,054	1.50
Sundry others ^e . . .	.....	.....	469,255	2.25	13,958	0.74	483,213	0.94
Foreigners ^d	609,304	2.13	^d	^d	^d	^d	609,304	1.18
	28,570,800	100	20,886,487	100	1,898,044	100	51,355,331	100

* Language of daily commerce in Austria, mother-tongue in Hungary, Bosnia and Herzegovina.

^b The Slovakians being numbered among the Czechs in Austria, the number of the latter would appear a little too high, that of the former a little too small.

^c In Hungary, the Poles, Slovenians, Italians and Ladinians are included in "Sundry others."

^d In Austria the foreigners were excluded from the census relating to the question of language, not so in Hungary, Bosnia and Herzegovina.

¹ See *Oesterreichische Statistik* N. F. Vol. 1, Part 2, Vienna 1914; *Magyar Statisztikai Közlemények*, Vol. 42, Budapest 1912; *Die Ergebnisse der Volkszählung von Bosnian und Herzegovina*, Sarajevo 1912. Foreigners may best find these figures in *Annuaire Internationale de Statistique*, Vol. 1, Page 143 ff., Haag 1916.

The number of the inhabitants of Austria-Hungary speaking German amounted to nearly ten millions or almost 35 per cent, and, together with the 126,393 subjects of the German Empire and other German-speaking foreigners, to more than ten millions. In Hungary, alone, their number exceeded two millions, thus forming one-tenth of the entire population. This total number of over 12 million Germans in the Danubian Monarchy—of which over 9.4 millions inhabited an area of 119,000 square kilometers, a compact territory with a population speaking exclusively German, and bordering on the German Empire²—was, during the existence of the Danubian Monarchy, a factor of some importance, but with respect to the intellectual rather than to the political life, the three parts in which the Monarchy was divided (Austria, Hungary and Bosnia-Herzegovina) being quite independent of each other as far as their politics of nationality was concerned. Great importance attaches to those figures, however, as illustrative of the working of the principle of nationality after the dismemberment of the old Monarchy. For while the majority of the other nations of the disintegrated Monarchy succeeded in realizing the principle of nationality,³ the German-speaking inhabitants had to face very grave opposing influences. Indeed, representatives of the compact German territories, elected by universal, equal and secret elections, met in a National Assembly in Vienna immediately after the Revolution, and solemnly and unanimously passed a law which pronounced

these territories to belong together and to form one single state, the National State of German-Austria.⁴ The foundation of this state, an example of the formation of a state by the right of national self-determination, has, however, not been acknowledged by the Council of Four in Paris.

The new Austrian state, while it was compelled to adopt the name of Republic of Austria, had to give up a territory of 26,869 kilometers with 3,122,839 German-speaking inhabitants to the Czecho-Slovakian Republic, a territory of 7,318 kilometers with 228,447 German-speaking inhabitants to Italy, and likewise some rather large districts with a German majority to Jugo-Slavia. This loss of territories with their population was particularly painful, as the territories yielded up to Czecho-Slovakia were some of them remarkable for their abundance in coal and manufactures (German-Bohemia) and others for their agricultural productivity (German-South Moravia), while with the Dolomite district Austria lost a center of attraction for tourists throughout the world.

GEOGRAPHICAL FRONTIERS OF THE REPUBLIC OF AUSTRIA

The new frontier of the Republic of Austria as fixed by the Treaty of St. Germain takes almost the same course as the old boundaries of the provinces of Lower⁵ and Upper Austria towards

² See the detailed statement on the cover of my map of languages in Central Europe, Vienna, Hermann Goldschmiedt, 1921.

³ The Czechs obtained an independent state of their own, the Poles, Roumanians, Southern Slavs and Italians were united with their motherlands.

⁴ See: *Staatsgesetzblatt für den Staat Deutschösterreich*, No. 1 ex 1918 (Resolution of the Provisional National-Assembly of German-Austria, dated 30th of October, concerning the fundamental institutions of the supreme power); No. 40 ex 1918 (Law dated 22nd of November, 1918, concerning area, frontiers and relations of the territory of German-Austria); No. 4 ex 1919 (Decree *Vollzugsanweisung* of the German-Austrian Staatsrat, State-council, dated the 3rd January, 1919, concerning the districts of jurisdiction, municipalities and villages, which should form the territory of German-Austria).

⁵ Deviations are to be found in the districts of

Czecho-Slovakia on the north. Then it runs along the old boundary line towards Bavaria and Switzerland, abandoning the same, however, south-west of Nauders and, turning eastward over the ridge of the Central-Alps (the Alps of the Oetztal, the Stubai and the Zillertal, and the Brenner Pass) cuts the German territory of the Tyrol in two.⁶ Starting from the Dreiherrenspitze in the Hohe Tauern it first runs south and then southeast, following on the whole the southern frontier of Carinthia (Carnishian Alps, and Karawanks) at the same time sequestering the district of Tarvis and two smaller districts in southern and northeastern Carinthia. Farther north of the Drave, the frontier takes in the main and eastward course as far as Radkersburg, whereby important German territories, among them Mahrenberg and Marburg have fallen to the share of the Jugoslav Kingdom.⁷ The eastern frontier of the Republic of Austria follows at first a tract of the former frontier of the Empire northeast of Radkersburg, then deviates to the northeast, following in general the frontier determined by language and embracing German-West Hungary, the so-called "Burgenland."

Lundenburg, Feldsberg and Gmünd, some parts of Lower-Austria being given up to Czecho-Slovakia.

⁶ For this and for the following see: "Flugschriften für Deutsch-Oesterreichs Recht," Vienna 1919.

⁷ See: *Die Südgrenze der deutschen Steiermark*, memoir of the Academic Senate of the University of Graz, Graz 1919. The territory hemmed in by the frontier of the German language at Marburg, by the Bacher-range and a part of the frontier of Carinthia, is inhabited by 40,080 Germans (= 52.4 per cent) and 36,310 Slovenes (= 47.5 per cent). It is further remarkable, that this frontier cuts off the only direct railway communication (Leibnitz-Marburg-Klagenfurt) between the provinces of Styria and Carinthia which are separated by the 'Kor-Alp.' So the whole traffic between the inhabitants of these provinces must be carried through a foreign country, unless the people prefer to take the

The German town of St. Gotthard remains at Hungary; the frontier then takes its course to the north till it reaches the Neusiedler Sea. Excluding the German town, Güns, it turns a little eastward, north of the Einser Canal, but bends off northwards to the Danube without embracing the whole of the territory where the German language is spoken excluding, especially, the German towns of Wiesselburg and Ungarisch-Altenburg which like St. Gotthard and Güns have been only quite lately Magyarized. Finally, the frontier follows the Danube and the March.

GENERAL DECREASE IN POPULATION

The territory enclosed within these limits (excluding German-West Hungary which has not been surrendered to Austria and the plebiscite territory of Carinthia) covers an area of 83,944 kilometers. According to the census taken on January 31, 1920,⁸ its population has diminished from 6,294,639 in the year 1910 to 6,067,430, i.e. by 227,209 persons or 3.61 per cent. The main share of this decline falls to the city of Vienna, the population of which has been reduced from 2,031,498 in the year 1910 to 1,842,005 in the year 1920, the reduction reaching the number of 189,493 persons or 9.33 per cent. We may best understand the importance of

round-about way via Graz and Bruck of Mur. Yet the Council of the Four generally made allowances in the interests of traffic even if against the principle of nationality. So for instance the Magyars were given over the wholly German territory of Wieselburg and Ungarisch-Altenburg (belonging to Western Hungary) to secure for them the railway-line from Raab to Pressburg, which is indeed of minor importance for them, than the above line (Leibnitz-Marburg-Klagenfurt) for Austria.

⁸ See: *Beiträge zur Statistik der Republik Oesterreich*, Part 5, *Vorläufige Ergebnisse der ausserordentlichen Volkszählung vom 31. Jänner, 1920 nebst Gemeindeverzeichnis*. Published by the Central Commission for Statistics, Vienna 1920.

these statistic facts if we bear in mind that a healthy population living under normal conditions should increase. This increase amounted in the territory of the present Republic of Austria during the decade from 1900 to 1910, to 10.61 per cent annually, *i.e.* more than one per cent a year.⁹ This statement of a decrease in the year 1920 not only implies the above-mentioned loss of a quarter of a million people, but beyond this it means at the same time an outweighing of the growth the populace must have shown in the pre-war period from 1911 to 1914. We must further consider the reduced

MORTALITY

The figures below may allow us to form an idea of the natural evolution of the populace (*i.e.*, excluding those who died outside the frontiers of the Austrian Republic on the battlefields or in hospitals).¹¹

The number of births has diminished from 153,542 in the last year of peace, 1913, to 87,594, or a decrease of 57.04 per cent, in the year 1918, the last in which these statistics have been published. Taking the sum of the yearly deficit in births we arrive at a total deficit of 227,514 births up to 1918.

BIRTH AND DEATH RATE 1913-1918

Year	Born alive	Deaths	Excess of births over deaths
1913.....	153,542	118,363	35,179
1914.....	151,862	119,462	32,400
1915.....	118,942	140,211	21,269
1916.....	94,199	136,402	42,203
1917.....	87,599	147,384	59,785
1918.....	87,594	166,378	78,784

birth-rate during the war and post-war time, which allows us the computing of the total war loss of this small country at nearly one million souls. The actual war losses due to military service form but a comparatively small part of this total. Including an appropriate quota of those reported "missing," they may be estimated at 160,000-170,000.¹⁰ There must be added the increased mortality in the interior of the country due to the starvation blockade and the economic catastrophe following the War; then, the falling-off in the birth-rate owing to the absence of the men from their families, to the war casualties and, eventually, to losses by migration.

On the other hand, the number of deaths increased during the same period from 118,363 to 166,378 or up to 140.56 per cent. This makes an excess of 118,022 deaths for the entire period under consideration. The deaths of military persons although included in these figures, contribute but little to them; for of the 325,000 deaths of military persons, who according to the army statistics have died of their wounds or of diseases at the hospitals, at least one-half occurred mainly on foreign soil at the front or along the military roads. Supposing the remainder of the wounded to be evenly distributed over the whole Monarchy, about 18,000 would fall to the share of the Republic of Austria, still leaving an excess of, at least, 100,000 civilian deaths. So, for instance, in Vienna, of which town we

⁹ Calculated after the *Oesterreichische Statistik* N. F. Vol. I, part 1, pages 29 and 36.

¹⁰ See: W. Winkler *Die Totenverluste der österreichisch-ungarischen Monarchie nach Nationalitäten*, Vienna 1919.

¹¹ See: *Statistisches Handbuch für die Republik Oesterreich*, Vol. I, first year, Vienna 1920.

have specified figures, the number of deaths among civilians increased from 32,130 in the year 1913 to 44,130 in the year 1918. Among this number the deaths from tuberculosis amounted to 4,981 in the year 1913, to 7,381 in the year 1918 and to as many as 7,843 in the year 1919.¹² The influenza epidemic in 1918 had easy play with the population which had been weakened through lack of proper nourishment. Half of the inhabitants of the Austrian Republic were attacked by the disease and 20,458 persons succumbed to it.¹³

STRUCTURE OF POPULATION

Some of these changes in the population are made evident by a careful

At the age above fourteen there were 1,212 women to 1,000 men; in places with more than 2,000 inhabitants, we even find an average of 1,337 to 1,000. This proportion of the figures opens up bad matrimonial prospects for the young girls and a bad outlook for the future growth of the population. This structure of the population is also a disadvantage for the productivity of the Austrian Republic. While according to the United States census of 1910 there were in America but 91 women to every 100 men from twenty to sixty years of age, there were 109 women to every 100 men of that age in Austria. The proportion of the sexes alone, represented in an equal number of in-

INCREASE IN TUBERCULOSIS 1913-1918

	1913	1918
Cases of tuberculosis	5.97 per cent	7.60 per cent
Duration of illness from tuberculosis,	240.10 days	336.50 days
Deaths from tuberculosis	0.04 per cent	0.93 per cent

consideration of the structure of the population according to the age of the inhabitants, as it would appear from a study of the census of 1920. It is true this does not clearly demonstrate the aforementioned mortality among civilians for, as a matter of fact, it has victimized individuals of every age and sex. On the other hand, we can easily gather from this census the casualties among all men able to bear arms and the heavy falling off of births. The decline of the male population is in the first place of great importance to the menaced evolution of the population.

¹² See: The publications of the Public Health Department at the Ministry for Social Administration: VIII, Siegfried Rosenfeld, *Die Wirkungen des Krieges auf die Sterblichkeit in Wien*, Vienna 1920 and XI, by the same author, *Die Aenderungen der Tuberkulosehäufigkeit Oesterreichs durch den Krieg*, Vienna 1920.

¹³ Publications of the Public Health Department at the Ministry for Social Administration: XIII, Siegfried Rosenfeld, *Die Grippeepidemie des Jahres 1918 in Oesterreich*, Vienna 1921.

dividuals, ensures a greater working capacity in the United States than in Austria.

Yet we have so far considered only the number of deaths, not the disabled soldiers (about 180,000) and those whose health was impaired by the so-called starvation blockade.¹⁴ Indeed, it is not only the mortality but also the morbidity which became appalling in consequence of the War. We find among every 100 subscribers to the health insurance in Vienna and Lower Austria¹⁵ an increase in tuberculosis as shown above.

Similar increases took place with other kinds of diseases. The poor and helpless old men and women are special victims; the deaths caused by old age were increased, in Vienna for instance

¹⁴ In spite of all these losses of working hands 84,000 unemployed were counted included in the census of the year 1920: *Beiträge zur Statistik der Republik Oesterreich*, Vol. 7.

¹⁵ Rosenfeld, Publications, etc., XI, page 2.

from 1,542 in the year 1913 to 3,279 in the year 1918.¹⁶

THE CHILDREN AND THE AGE-PYRAMID

Not less deplorable but still much more serious if we contemplate the future of the Austrian population, is the health of the children. In an examination of 144,947 school children made by Professor Pirquet at the request of the American Help the Children Administration in the year 1920, only 30,594 equal to 21.1 per cent, were found to be well fed; 81,287, equal to 56.1 per cent, were marked as "ill-fed"; 33,066 children, or 22.8 per cent, were put down as "very ill-fed." Also in other towns of Austria measurements were made with similar unfavorable results.¹⁷

The health of the infants is a matter for even graver consideration. According to a report of Dr. Poerner at the Congress for Jugendfürsorge which met in Vienna in July, 1921, 85,000 children up to six years of age were

¹⁶ Publications, etc., VIII, page 35.

¹⁷ See: Friedrich Reischl, *Die amerikanische Kinderhilfsaktion in Wien*, Vol. I-III, Vienna 1921.

assigned for medical examination by the *Mutterberatungsstellen*, mothers advice councils, in the year 1920. Of these but 10 per cent were in the condition of normal nourishment, while the nourishment of 90 per cent was disturbed, 60 per cent being really ill. Children with infectious diseases were excluded from the examination. In 19 per cent of these cases one or both of the parents were ill; in 3½ per cent, incurable.

Thus we may trace the terrible destitution working havoc at every stage of life and aggravating the heavy wounds inflicted by the War. The children forming the base of a once proud age-pyramid are growing up, small in numbers and shaken in health. Indeed an appalling outlook on future possibilities opens up before the observant eye should the present economic distress be allowed to continue. We will however not abandon ourselves to such gloomy aspects of the future; we will rather be confident of an improvement in the economic situation and hope for a more favorable evolution of the population.

CHAPTER II

The Present State of Agriculture and Forestry in the Republic of Austria

Compiled by the Central Board for the Protection of the Interests of Agriculture and Forestry

THE fundamental conditions of Austrian agriculture and the food supply closely connected with it, are in the first instance to be looked for in the orographic and climatic situation of the country. With the exception of a few small districts Austria is a mountainous land, with a prevailing continental and Alpine climate

Of a total area of about 7,785,295 hectare¹ nearly 800,000 are unproductive, so that only 7,000,000 hectare of the whole area are cultivated. Of these, 2,947,000 hectare are covered with forests, 1,274,000, with pastures, Alpine pastures, lakes, swamps and

¹ One hectare = 10,000 square meters = 2.471 acres.

ponds, and do not count for intensive cultivation. There remains only a comparatively small area of 2,770,000 hectare for intensive cultivation. Of these, again, 1,790,000 are arable soil, and the rest meadows, gardens and vineyards.

Austrian agriculture consists chiefly in the production of grain as far as permitted by the orographic and climatic conditions: namely, over an area of about 780,000 hectare; the greater portion of this area serves to grow rye. It may be well to remember that Western Hungary is not included in these figures, as this territory has so far not been actually united with the Austrian Republic.

A clearer insight into the alarming falling off in agricultural production may be gained if we point out how completely Austrian soil has been exhausted by the piratical system of tillage practised, of necessity, during the War. Between the years 1913 and 1919, the crops were estimated at from 35 to 40 per cent below normal. Official investigations in 1919 have shown a yield of only one-half the yield of grain in former times.

Although the experience of pre-war time would justify the hope of considerable improvement in the rentability of land, the fact remains that Austria will always be dependent on foreign imports of grain. That no effort is spared in bringing about such an improvement is demonstrated by an action inaugurated by the government and supported by a lively propaganda on the part of all agricultural bodies, especially the association of Austrian husbandmen (*Landwirstestelle*), to provide a cheap supply of all kinds of manure.

It goes without saying, that every importation of grain to meet the requirement of the Austrian populace means an enormous burden for the

public finances of Austria, in view of the present rate of the kronen exchange. This is why the government continues to control the production and trade in grain, even though such control doubtless means a serious impediment to the revival of agriculture. Since it compels the farmers to deliver a great percentage of their crops at government prices, which are far below those in the foreign markets, it is only natural that the peasants regard government control as a grave injustice and peril.

Now that the flour ration is so small the potato crops are of increasing importance. Official statistics show that, altogether, 97,000 hectare were utilized for growing potatoes in 1919. The potato crops have suffered a yet greater reduction than those of grain; this reduction may be estimated at about 50 per cent as compared with pre-war times. Great efforts were made to raise the home production. These resulted in the government's importing seed potatoes from abroad, chiefly from England, at a great sacrifice. The imported potatoes were handed over to the farmers together with the requisite quantities of artificial manure.

We may make a similar observation regarding leguminous plants, the importance of which has been augmented in proportion to the reduced rations of bread and flour. Austria lost her chief districts for growing leguminous plants when Bohemia, Moravia and Galicia were separated from her after the break-down. It must further be noted that according to official statistics the yield of leguminous plants had diminished by one-third during the war as compared with pre-war times.

From what has been said above, we may gather that the yields of Austrian soil will never entirely suffice to meet the requirements at home even

if we admit the possibility of an improvement in the future by proper tillage and investment of capital. The future hopes of Austria concerning agriculture are founded on the breeding of cattle, for which the conditions are much more favorable. Here we may be allowed to point out the large stretches of pasture in the Alps, the favorable climate for breeding strong and hardy cattle and the training of the cattle farmers, which dates back some hundreds of years.

Unfortunately, here as elsewhere, the War with its compulsory delivery produced great damage, less affecting the quantity than the quality of the live stock. A great diminution is to be observed in the number of horses; by the official statistics, only 230,000 horses were counted in the Republic of Austria in 1919, while at that time there were 1,950,000 head of horned cattle, of which 550,000 were young cattle. A considerable increase is shown in the number of goats which reached 289,000 in 1919, that is about 50,000 more than in pre-war times; likewise in the number of sheep, with 316,000 head against 290,000 head in pre-war times. The stock of pigs is to be estimated at 1,100,000 head against 1,800,000 before the war.

As mentioned above, the qualitative loss was more apparent. The fact that the present live stock is not full-grown and that the number of animals used in the yoke, such as horses and oxen, has been reduced, is of the gravest import to Austrian farming. Another difficulty is the obstacle to breeding added by the indiscriminate requisitions during the long years of the War, which often deprived the farmers of their best breeding material. Moreover, the complete stoppage of transport for other than military purposes prevented the exchange of cattle, so that in-

breeding was favored to an appalling degree. Even during the first period of peace, the great difficulties in procuring food caused the provinces, the districts and the communities within them to set up barriers against the export of cattle. Only quite recently has it proved possible in many instances to remove some of these measures of isolation. It may, however, be expected that the mutual intercourse between the various districts, so important to a cattle breeding country, will revive again. But even then cattle breeding will suffer great difficulties from the want of concentrated forage.

In conclusion, we may say that in all branches of agriculture there is a large disparity between supply and demand, and that Austrian agriculture will never be in a position to supply sufficient food for the people although, thanks to incessant labor, improvement has already commenced and a further improvement may be expected.

THE FORESTRY SITUATION IN AUSTRIA

The prospects of forestry are a little more favorable. An area of three million hectare of Austrian soil are covered with forests, so that about 38 per cent of the total area of Austria is devoted to forestry. We should, however, be induced to form very erroneous notions of Austrian wealth in wood if we forget to add that according to official statistics about 20 per cent of these forests are either inaccessible or declared a sort of preserves, *Servituten*, wherein no trees may be felled. We must therefore first eliminate this fairly large portion of the forests before contemplating the chances of utilizing the wood. The exploitation of about 20 per cent of Austrian forests is partly conceded to the peasants on the strength of the right of *Servitut* and therefore the gen-

erally available production is limited.

If wood may rightly be called the principal article for export in Austria, one must not forget that continuation of this export has been possible only on account of the large stock which had accumulated thanks to the conservative forestry system of pre-war times. Owing to this large reserve stock Austria is still able to export wood despite its being used as fuel to a much greater extent than before. It will soon follow, as a matter of course, that highly valuable timber will have to be used as fuel and great damage will ensue to the economics of the Republic.

The efforts of the Austrian Government have been so far successful in bringing about an improvement of the coal supply of the country. There is reason to hope, therefore, that the prophesied economic harm may not result but that, on the contrary, Austria's natural riches in wood may in the future suffice to meet the demands both foreign and domestic.

The problem of recolonization has developed as a consequence of the injurious effects of the repeated selling out of small farms, which had fallen into trouble, by the great landed proprietors. The dimensions to which this so-called *Bauernlegung*, selling out of peasant farms, has grown, may be gathered from the fact that within the last fourteen years over 12,000

smaller farms have been assimilated by the great landed estates. The colonization law (*Wiederbesiedlungsgesetz*) of the year 1919 slipped a bolt, here, by decreeing that under certain conditions all such farms or cottages as could be worked individually and had been independent since 1870, should be returned to the farmers who had formerly been on them. Naturally the preparatory work took some time, so that the lists of the farms fit for colonization were finished only in June, 1921. An idea of the number of farms concerned may be gathered from the fact that in 240 communities of Lower Austria, alone, 1,100 farms have been entered in the registers. The opposition of the great landed proprietors has been so far vanquished by the pressure brought to bear on it by the peasants that in many cases they were ready to enter into negotiations with the peasantry. This peaceful adjustment serves to accelerate the enforcement of the colonization law, since the long investigation of the colonization commissions and the delays caused by remonstrances, which might be raised in the course of the legal procedure, may be thus avoided.

By such measures Austrian agriculture may soon be intensified, a development which, in the light of the preceding statements, is a consummation to be sincerely wished by every Austrian.

CHAPTER III

The Water Power Question in Austria

By DR. FRIEDRICH HERTZ

Vienna

AUSTRIA'S poverty in coal is partly compensated by the abundance of her water power; nor is the statement correct, though so often repeated, that

Austria has as yet made no real use of this natural resource. There are now in existence innumerable old power stations beside many modern installa-

tions. Nevertheless, Austria certainly does appear behindhand compared with the progress made in hydro-electricity by Scandinavia, Switzerland, Italy and France. The reason for this is that in the old days coal could be obtained to such advantage from Ostrau and Upper Silesia that many factory owners shied at the considerable outlay of capital involved in the installation of water power. The utilization of water power is in itself a lengthy and costly process, and the lack of capital in a war-worn country is a great obstacle in the way of the realization of extensive schemes.

ESTIMATES OF WATER POWER PROSPECTS

The various estimates of the power available differ considerably according to the extent of the power included. As a rule, the estimates include only the larger sources of water power; some are based on low water, others, on a medium water, etc. The water power prospects of the Austrian Alps have been thoroughly investigated by many experts, official and otherwise, and extremely valuable and practical information is at the disposal of anyone interested. The State Hydrographical Central Bureau has prepared a schedule of most of the water courses, giving statistics and diagrams of all hydrological and other data appropriate for the development of water power. The various sheets of this schedule may be bought singly. Moreover, the management of the State Railways has for years been studying the utilization of water power and the adaptation of the railways to electricity, and its investigations have likewise yielded an almost complete description of the chief sources of water power. The principal results are contained in the report, "*Mitteilungen über die Studien zur Ausnützung der Wasserkräfte*"

(Government Printing Office, 1917). The Appendix to this valuable work contains a list of 433 important sources of water power in the Alps, indicating their respective HP capacity.

The result of these investigations on the part of the State Railways Administration was the conclusion that in the Alpine regions then belonging to Austria, about 3 million HP of water power were available which could be usefully employed under the economic conditions then prevailing; of these only 250,000 HP (*i.e.* only 8 per cent) were at that time already in use. It must further be remembered that the enormous increase in the price of coal which exceeds the increase in the cost of building, has enlarged the possibilities of profitably installing hydraulic power. Under existing conditions, water power may be used with advantage which would not previously have paid, and the financial possibilities have altogether increased. The reason for these altered conditions is that about half the cost of installing hydraulic power consists of wages, which have not increased to the same extent as the price of coal, which has to be paid for in foreign currency.

On the other hand, the figure of 3 million HP has been reduced, as important sources of water power are situated in the territories ceded under the Peace Treaty. In particular, the German part of the Southern Tyrol, which has fallen to Italy's share, is a district very rich in water power; also, the German districts of Marburg, which fell to the share of Jugo-Slavia, and of Südmähren, which went to the Czechs, possess valuable water power. If we reckon up the sources of Alpine water power examined by the Administration of State Railways that now remain within the restricted frontiers of Austria, the result is a mean yield of about 1.4 millions a year. How-

ever, as the estimate does not include many smaller sources of power, and as the district to the north of the Danube also contains considerable water power, *the total available water power of German Austria worth using would give a mean annual yield of about 2.5 millions.*¹

WATER POWER FOR COAL REPLACEMENT

If we accept the figure, customary in industry, of 3,000 hours' use, we arrive at the conclusion that, theoretically, *all the water power of Austria, fully utilized, would provide a substitute for 7.5 million tons of black coal, or about 11.25 million tons of lignite, i.e., considerably the greater part of the quantity of coal which Austria is now obliged to import.* This calculation does not regard the fact that many water powers can be used twenty-four hours a day which, of course, increases still further the quantity of coal replaceable.

According to official estimates, about 7 million tons of coal, at present used to provide power and light for railways and industries, could at once be replaced by means of water power; whereas, the coal required for heat for industrial purposes (1.5 million tons) and for household use (4.2 million tons) could be replaced by electricity only if the price of coal were extremely high, and even then could be only partially replaced.² For the present, it is prob-

able that gas will be used mostly for cooking, as this is the best way of making complete use of coal, whereas gas lighting will gradually give way to electric lighting.

Unfortunately, however, the practical realization of this object cannot be expected in the immediate future. Even before the war, when Austria was comparatively rich in capital, it seemed impossible to raise funds for carrying out an extensive program for the development of water power.

The steep descent of the Alpine streams makes high pressure installations possible, and these are for the most part cheaper and quicker of installation than the low pressure installations on streams and rivers of the plains. However, even the best high pressure stations of our Alps produce their energy at greater cost than the large stations on the seacoast of Norway and Dalmatia, which must therefore be regarded as important competitors on the world market in electro-chemical products which necessitate large quantities of the cheapest current.

Under existing conditions matters have taken a turn in favor of Austria. For many years now, a few large electro-chemical undertakings, aluminum, calcium carbide, iron products, nitric acid, calcium nitrate, etc., have established themselves in the Austrian Alps and are working with good results. With the help of electro-chemistry, Austria would be able to replace

¹ Proof that the investigations of the Administration of State Railways have not exhausted all the water power resources is provided by the example of the Danube, which appears on the list with only three stages with a total yield of 242,000 HP. Even if only a small amount of water is withdrawn from the Austrian part of the Danube the power obtainable may be estimated as at least half a million HP; optimists have given even higher estimates.

² A thorough and practical study of the Swiss electrical works (c. f. *Elektrotechnische Zeitschrift* 1919, Vol. 40, 41) has led to the conclusion that 1 kilogram of good coal used in a reliable central heating installation equals 4 to 5 kilowatt

hours; used in a good separate stove, 1.8 to 2 kilowatt hours; in ordinary inferior separate stoves, 1 to 1.2 kilowatt hours. Further, experience has shown that cooking by electricity is not more costly than gas cooking, if one kilowatt hour for cooking purposes costs half to one-third of one cubic metre of gas. According to this, the use of water power for heating might be a sound economic proposition even in Vienna under present conditions. This is particularly applicable in cases where cheap night current is available and where the heat can be stored.

many raw materials from abroad, which the present rate of exchange has placed almost beyond her reach.

The water power available in the Alps is subject to considerable fluctuations according to the season, and it is difficult to balance these fluctuations. The construction of reservoirs for preserving the water against drought is for the most part impracticable in the Alps, which are limestone, because the geological formation of the substrata and of the sides of the valleys would make the construction of the walls of the reservoirs very difficult, and, further, because the large quantities of rubble carried along by the Alpine streams would fill up the tanks. In this respect, the districts to the north of the Danube, which are on primeval rock, are better, as they offer a solid foundation and smaller deposits of silt. But even in the Alps there are parts where lakes or other suitable spots can be used for storing water, and the Administration of State Railways is now studying the possibilities of utilizing several such suitable localities.

ELECTRIFICATION PROJECT OF THE STATE RAILWAYS ADMINISTRATION

The former administration of the Austrian State Railways had already secured twenty-four water power stations, with a mean annual yield of 125,000 HP, beside a number of options with a view to the electrification of the Alpine railway. Twenty of these power stations are within the territory of the Austrian Republic. The existing Austrian State Railways require electricity to the extent of about 116,000 HP mean annual yield.

The lengthy investigations of the Administration of State Railways have before the War often been deprecated as being an obstacle in the way of the utilization of water power. Since the electrification of the railways of-

ferred formerly no financial advantages in view of the prices then ruling for coal, and since, moreover, the Army Staff objected to it from the military point of view, the Administration of Railways was not in a position to proceed with the work, nor could it release the water power to private enterprise. Now these obstacles have ceased to exist and the Administration of State Railways has worked out an extensive program for the electrification of the Alpine railways,³ which is already being carried out.

The Railways Administration has demonstrated by figures that the execution of the scheme would introduce considerable economies in coal, engines and coal trucks, staff and time, thus making the whole traffic cheaper, more regular, quicker and capable of increased business; moreover travelling would become pleasanter. The idea is, in the first place, to electrify the Western State Railways, traffic on which is most important, and which represent 40 per cent of the mileage and 50 per cent of the coal consumption of the State Railways. It would take from twelve to thirteen years to complete the adaptation. Five of these lines would be worked upon first, representing 14.6 per cent of the State Railway system. This would mean an annual saving of 400,000 tons of coal (at 4,500 calories) *i.e.*, about 12 per cent of the total requirement of the State Railways and 5 per cent of the total requirement of Austria. Given favorable conditions, the electrification of these five lines might be completed in about five or six years. The cost for these lines is calculated at 5.1 million kronen, and the annual saving of coal at 327 to 424 million kronen. Of course all these cal-

³ C. f. the very valuable statements affixed to the draft of a law concerning the introduction of electricity and motive power for railways, etc. 1920, which gives a full survey of the matter.

culations are very uncertain, as future price developments cannot be foreseen. The requirement of power will be covered by the development of certain works in Vorarlberg, Tyrol and Salzburg.

WATER-COAL SUBSTITUTION SCHEMES IN VIENNA

The most urgent question, however, is to substitute coal in Vienna and the surrounding industrial area of Lower Austria. More than half the population is contained in Lower Austria, besides two-thirds of the heating surface of all the boilers of the country. Of the rest of the population and of the boilers, about half is contained in Styria. But whereas Styria is rich in coal and water power, and whereas the remaining provinces can easily be connected with certain power stations, Vienna presents a more difficult problem. The energy generated in the Alps can be transmitted to Vienna only at great expense and with great loss of current. The most suitable plan would be to use the water power of the upper Enns (about 79,000 HP mean yield); its energy could be transmitted to Vienna by means of a 170 kilometer transmission line. Up to the present, however, the province of Styria, in whose territory this installation would come, has opposed this course in order to reserve the power for Styrian industry. This attitude is a sign of regrettable local interests, for Styria can cover her requirement from plenty of other streams, whereas Vienna has no such choice. Quite recently, however, Styria seems to have modified her attitude.

The city of Vienna has in consequence of these difficulties decided, in the first place, to develop the water power of the upper Ybbs (13,000 HP mean yield), and to connect with this a smaller station ¹Kienberg-Gaming (about 5,300 HP). The 120 kilometer

transmission line of the Ybbs station (110,000 volt tension) is being adapted to yield 35,000 HP, and the situation of the locality makes it possible, if desired, later to connect with it part of the power of the Enns, should the present difficulties be overcome. The time it will take to get the Ybbs Station in working order is calculated at three to four years, and for the Enns Station, five to six years; an advantage of the combination of both works is that their respective low water periods set in at different times of year. It is further designed to bring the above mentioned transmission in connection with the project of Persenbeug (a loop of the Danube with a mean yield of 7,200 HP) and with the Lunz coal mines at present about to be opened by the city of Vienna. The scheme, therefore, promises to make use of a quite substantial amount of power within a comparatively short time. Further it should be remembered that the power of the Ybbs can be accumulated by means of the Lunz Lake and by blocking the valley, to compensate for the variations in the flow of the water and achieve a regular supply of current. In any case, this scheme seems to hold much more promise than, for instance, the daring project of the Krems-Kamp Works (continuous annual yield of 27,000 HP), which would involve unduly great technical difficulties, or the power stations of the Thaya and the Drau, which it was formerly thought might be used for supplying Vienna, but which are now in Czech or Jugo-Slav territory.

Nevertheless, there are various objections to the development of the water power of the Ybbs, these objections being raised by the adherents of the Danube scheme, who are afraid that the execution of the less ambitious project would indefinitely postpone installation of the much larger Danube

works. They state that, if the standing annual requirement of Vienna were covered by these smaller works, there would be no prospect of developing the important water power of the Danube for the remaining irregular requirements, which vary considerably, since this would not be a financially paying proposition.

THE DANUBE AND OTHER PROJECTS

The Danube, it is true, would be capable of supplying an enormous quantity of power, and there are in existence a large number of schemes, in a state more or less developed. The Wallsee scheme, in Upper Austria, is the only one which is ripe for execution. Its mean yield would be 140,000 HP at a rate of 1,350 cubic metres per second; the energy could be transmitted to Vienna by means of a conduction 130 kilometers in length. This scheme entails the building of a dam on the Danube and has given rise to many objections on account of the danger of floods and ice. The concession for the work has, however, been granted upon such conditions as would appear to avoid these dangers and the interests of shipping have also been fully protected in the concession.

All the other Danube projects have been designed without the necessity of a dam, *i.e.*, with free flow of the stream. This has the advantage of avoiding the construction of a dam, which would be a lengthy and costly process; but, on the other hand, the water works would be dependent upon the state of the stream, so that there would be greater fluctuations, and very long canals and expensive constructions for regulating the current would be necessary.

In the Lower Austrian district, between Krems and March alone (*i.e.*, a reach of 120 kilometers long from Vienna) a maximum yield of 160,000 HP, or an annual mean yield of 140,-

000 HP, could be obtained without any prejudice to shipping; and this is calculating drawing water from the Danube only at the rate of about 400 cubic metres per second. The Communal Building Office of Vienna estimates the cost of construction at 211 to 270 million gold kronen.

The advantage of most of the Danube works consists in the large quantities of power they can extract, of the fact that they do not necessitate long conductions (in the case of the Lower Austrian reaches of the river) and of the fact that the necessary canals can be quickly dug by mechanical means and by unskilled labor.

The disadvantages, on the other hand, are as follows: great fluctuations in the flow of the stream; the necessity of a very long time for construction; danger to shipping by reduction of the quantity of water in the river and the accumulation of gravel in consequence of decreased carrying power. The last disadvantage can certainly be obviated by regulation of the stream and by dredging, but this would increase the expense. Whether power from the Danube would be cheaper or more expensive than the Alpine high pressure works mentioned above is doubtful. The Vienna Communal Building Office assumes that Danube horse power would be somewhat more expensive than high pressure power. It is generally found that low pressure power is dearer because it requires a larger quantity of water, and therefore the canals, sluices, machines, etc., have to be constructed on a larger scale. On the other hand, the high pressure works under consideration have the disadvantage of necessitating very costly tunnelling and boring and very long transmissions. The time needed and the expenses entailed by the Danube works depend chiefly upon whether a sufficient number of dredg-

ers and enough other building apparatus, trucks, etc., are available.

TREATY OF ST. GERMAIN AND WATER POWER DEVELOPMENT

In this connection, we must refer to Article 298 of the Peace Treaty of St. Germain, which prescribes that the interests of water power development are actually to take precedence of the requirement of shipping, but only on condition that a full agreement has been reached by all the States through which the river runs and which are represented on the Danube Commission. It is now feared that there may be some among these States which have no interest in freeing Austria from its dependence upon foreign sources of coal supply. *It is of the greatest importance that this question should be cleared up as soon as possible.* The Peace Treaty further provides for a Court of Arbitration to be appointed by the League of Nations with authority to deal with questions of this kind.

Before the War, Austria had introduced a complete reform of water rights and of electricity laws, representing the most modern point of view. The War, however, and the internal political situation put a stop to this reform. The local interest of the various states forms a barrier to uniformity of laws; besides, various states wish to use the water power available as much as possible for local purposes. But we may hope that in the end purely economic and commercial considerations will win the day. The individual states simply do not command the money to execute elaborate schemes without the help of the federal exchequer and of the financial institutions of Vienna. In Switzerland, for instance, the rivalries between the different Cantons caused similar difficulties; but in the end they did not

put a stop to the development of water power.

It is of primary importance that the law governing sources of electrical energy shall at last be settled, as otherwise the construction of long-distance transmissions is exposed to local obstructions and petty hindrances. It must further be considered whether in order to save coal industrial undertakings should not be compelled by law to make use of the electric power to be generated.

The Finance Ministry is encouraging the development of water power by allowing substantial dispensation from taxation. Several bills have been passed to this effect. Foreign capital invested in such undertakings will be free of capital levy, and all capital so invested will receive great advantages as to amortization. In any case, an extensive scheme for the development of water power can rely on the Austrian Finance Ministry for full approval and support.

WATER POWER—A PROSPECT FOR FOREIGN CAPITAL

To summarize the preceding remarks, it may be said that all legal and technical facilities for the most extensive development of water power in Austria are provided, and, further, that *the financial prospects for foreign capital are particularly favorable.* The immense increase in the price of coal has turned the tables in favor of water power, and even such water power stations as would hardly have been able to compete with coal before the War are now in a much more favorable financial position than coal power stations. While the price of coal has increased 120 to 150 fold, the cost of construction has risen only about 100 fold. Before the War the construction of one HP cost from 600 to 1,000 kronen. Moreover the dollar rate of

exchange has risen so enormously *that at the present rate of exchange American capital could develop the water power of Austria at about one-half of the expense in dollars that such an undertaking would have entailed in pre-war days.*

Austrian water power, therefore, can offer much better inducements in the international market than has ever been the case before; further, it could undoubtedly be used for the develop-

ment of an important electro-chemical industry and other such products as would find a good market on account of the low price at which they could be exported, *so that the foreign capital invested in the development of Austrian water power would also earn interest in foreign currency.* Such investments would be of inestimable advantage to Austria's whole economic situation.

CHAPTER IV

The Coal Supply of Austria After the Revolution of 1918

By RUDOLF KLOSS, D.L.L.

Civil Engineer and President of the Coal Supply Department of the Board of Trade

THE Revolution at the end of 1918 completely upset the coal supply of Austria. The most important coal districts of Austria, the brown coal district of Northwestern Bohemia, the gas, coal and coke district of Ostrau-Karwin, the district of Trifail, fell to the Succession States, which immediately imposed hard conditions on the export of coal.

In Upper Silesia, which supplied most of the coal needed in Austria, the output was reduced to but a small fraction of its normal extent and therefore only quantities quite inadequate to the demand could be spared for Austria. The supplies from the Ruhr-Saar valley on which the western provinces of Austria (the Alpine Montan-Gesellschaft in particular) depended for coke for their blast-furnaces, ceased entirely.

So Austria had to fall back on her own coal production which has at all times come short of the demand and suffered a further reduction through the Revolution. Her inland coal, being

brown coal, lignite, was of inferior quality. It was clear, then, that the coal supply of the new Republic had to undergo a process of reconstruction under greatly changed circumstances.

DISTURBANCE OF COAL IMPORT DUE TO POLITICAL CONDITIONS

The unfavorable situation of the coal problem was further aggravated by the political conditions at home and abroad. The dismemberment of the old Monarchy into the several National States dealt a heavy blow to the competence of the central authorities. This made itself specially felt with regard to the coal supply. Some of the provinces took the coal administration into their own hands. But the economic pressure of those days caused not only the provinces but also some of the town and district councils, workmen's and soldiers' councils, military bodies and subordinate railway authorities to proceed independently in the coal question; they laid embargoes on all coal they could get.

Similar conditions in the neighboring countries also added to the difficulties of the import of coal, whether the governments of these countries closed the frontiers, or whether subordinate railway authorities arbitrarily laid embargoes on coal destined for export to Austria, some of them in order to secure their own demand, some only in demonstration of their national feeling.

Especially the coal transports through Czecho-Slovakia, through which country all the coal from Upper Silesia has to pass on its way to Austria, continued to suffer disturbance for a long time. Often the frontiers were even completely closed, as when the bank notes were being stamped with a view to nationalization or when the warlike conflict raged between Czecho-Slovakia and Poland over the division of the plebiscite district of Teschen. Over and over again, even up to the present day, the precarious and inadequate coal supply of Austria

has had to cope with like disturbances, forcing many industries to reduce the working hours and hampering their steady development. Just at present Austria has to do without pit coal from Upper Silesia owing to the political troubles which began on May 1 of this present year.

REQUIREMENTS AND HOME OUTPUT

The monthly requirements of fuel in Austria are divided according to the various groups of consumers as shown below.

These fuel requirements have to be met by the home product and by importation.

The Austrian *home output* of coal amounted to 228,925 tons a month in 1913, the last year of peace; it sank to 150,000 tons, *i.e.* 12 per cent of the requirements, after the Revolution. It must also be remembered that the inland coal is nearly all brown coal (lignite), pit coal being produced only in

MONTHLY FUEL REQUIREMENTS FOR AUSTRIA

<i>Groups of consumers</i>	<i>Coal</i>	<i>Coke</i>	<i>Total</i>
Transport.....	388,800	2,560	391,360
Vienna metropolitan gas work.....	66,000	.....	66,000
	38,350	.....	38,350
Gas, water and electrical plants in the provinces.....	12,250	.....	12,250
Private consumers in Vienna.....	156,300	15,500	171,800
Private consumers in the provinces.....	141,700	14,100	155,800
Agriculture.....	4,500	.....	4,500
Food industries.....	30,100	1,700	31,800
Iron, and steel foundries.....	148,730	83,250	231,980
Requirements of the coal-mines.....	25,800	.....	25,800
Other mines.....	17,400	1,500	18,900
Salt works.....	11,600	.....	11,600
Chemical industries.....	36,500	4,200	40,700
Glass industries and potteries.....	14,900	100	15,000
Building materials.....	58,100	5,380	63,480
Tobacco manufactories.....	1,450	80	1,530
Textile industries.....	28,200	1,400	29,600
Leather industries.....	5,100	300	5,400
Paper industries.....	35,000	100	35,100
Wood, and other industries.....	1,500	300	1,800
Total.....	1,222,280	130,470	1,352,750

trifling quantities. Yet the inland coal is the only coal which Austria really has at her disposal.

GOVERNMENT MEASURES TO INCREASE DOMESTIC COAL OUTPUT

Therefore the Austrian government is giving its best attention to the home production. In the first instance, the government tried to stimulate the development of the existing coal mines and the establishment of new mining enterprises. Unfortunately, all investments had in consequence of the prevailing coal shortage to encounter the greatest difficulties, as the industries which should have supplied the machinery and other materials required could be worked only temporarily.

One of the chief reasons for the diminution of the coal output was the decrease of the working capacity of the miners by the bad food situation. The Coal Department of the Board of Trade, therefore, induced the government to grant the miners the privilege of considerably better food supplies on condition of more efficient work. For an intensification of their work by 10 per cent as compared to the work done in the first quarter of 1920 and for the performance of one Sunday-shift a month, the miners are granted premiums in the shape of foodstuffs at very low prices, the premiums being raised to conform to a further increase of the work, finally approaching the food supply of pre-war times, should the increase reach 20 per cent. For additional Sunday-shifts the miners receive premiums in the shape of clothing.

By all these measures gradual increase of the home production of coal was made possible. The coal output amounted to not over 156,000 tons a month in the year 1919. These measures raised it to 197,000 tons in January, 1920, and it had already reached

the peace output with 229,000 tons in January, 1921. These figures have since been even a little surpassed.

DIMINUTION IN PRINCIPAL SOURCES OF SUPPLY

But the first place in the coal supply of Austria must be left to the *import of coal from abroad*, especially from Czecho-Slovakia and Germany. Czecho-Slovakia, which had supplied Austria with 35 per cent of her coal requirements in 1913, placed exportation under very hard conditions immediately after the Revolution. Therefore negotiations on behalf of the continuity of the coal supply were begun immediately. For political reasons these negotiations turned out to be extremely difficult. It must be continually borne in mind that the regulation of the Austrian coal supply has always been hampered by political problems. At present, Austria gets 140,000 tons of coal a month, *i.e.* about 40 per cent of the quantities received in peace time, from Czecho-Slovakia, conforming to a contract of compensation.

Another country of importance for the coal supply of Austria is Germany, the territories that form the new Austria having obtained from Germany, especially from Upper Silesia and to a smaller extent also from the Ruhr and Saar districts, 360,000 tons of pit coal a month. After the Revolution the supplies from the last mentioned districts were stopped absolutely. In Upper Silesia the output was reduced to one-sixth of the pre-war output, partly by labor troubles, and partly by the lack of means of transport, as Germany was compelled by the terms of the Armistice to give a large part of her engines and other transport facilities to the Allied Powers. For some time therefore, the export to Austria had to be nearly suspended. Only gradually after the hauling conditions had im-

proved could deliveries to Austria be increased.

On the occupation of Upper Silesia by the Interallied Plebiscite Commission in 1920, the quantities of coal to be delivered from Upper Silesia to Austria were fixed by the Reparation Commission in Paris at 200,000 tons a month. This quantity was always fully delivered up to May 1 of the present year when the supplies were stopped, owing to the political troubles in Upper Silesia.

Finally, Austria gets the comparatively trifling quantity of 13,500 tons a month, in accordance with a compensation treaty, from Poland.

In addition, some smaller quantities are being brought in to Austria beyond the contingents fixed by treaties, especially from Czecho-Slovakia. The output of brown coal of inferior quality in Czecho-Slovakia has constantly surpassed the demand, leaving a surplus for export, on all of which an export duty was imposed.

The provision of American or English pit coal, offered for sale in any quantity, has so far proved impossible, its price being prohibitive in consequence of the depreciation of the Austrian exchange. In Vienna, the price of Czecho-Slovakian brown coal amounts to about 3,000 kronen, the price of pit coal from Upper Silesia, to 4,500 kronen per ton, while the price of the American pit coal is nearly 10,000 kronen, a price the Austrian industry cannot pay, threatened as it is by foreign competition.

Altogether, Austria had a quantity of 6,490,789 tons of coal at her disposal in the year 1920, *i.e.*, 540,000 tons a

month, just 41 per cent of her total requirements. The coal situation was, therefore, extremely hard, especially during last winter.

CONSEQUENCES OF DIMINUTION IN SUPPLY

The inevitable consequence of this insufficient supply and of the frequent stoppages of importation were repeated restrictions of the tram service and a very scanty supply for the most urgent public needs such as food industries, gas and power works, hospitals and household fuel, even kitchen fires. The population was often exposed to the direst distress, and the laboring classes to the greatest unrest owing to unemployment.

Most hopeless was the plight of the metropolis, Vienna. Here the gas and power works as well as the tram service had to undergo decisive restrictions, and private households were limited to the consumption of one cubic meter of gas and one hectowatt of electricity a day only. In Vienna, the allowance for kitchen fires per week and household is only seven kilos (about 15 lbs.). A more liberal supply to the 540,000 households in Vienna could be granted only if there were much larger quantities of coal on hand.

Though the coal situation of Austria has gradually improved as compared with the awful plight immediately after the Revolution, the quantities of coal at her disposal are not nearly sufficient to allow a return to normal economic life. Only by considerably raising the import from abroad and by securing its regular delivery can anything like a lasting improvement be produced.

CHAPTER V

The Public Finances of the Republic of Austria

By DR. EMANUEL HUGO VOGEL

Professor of the University of Vienna

THE public finances of Austria reflect the situation to which that country has been reduced by the Treaty of St. Germain. After the dissolution of the former economic unit of the Austro-Hungarian Monarchy, the Alpine provinces, lacking coal, mineral oils, etc., and chiefly dependent on importations from abroad for agricultural products and the most necessary commodities, remained with the newly founded Austrian Republic; while the larger part of the territories boasting of great riches in raw materials and manufactures fell to Czechoslovakia. Austrian manufactures are taking great pains to resume their former economic relations with the other Succession States, but industry and commerce continue to be much hampered in their development by reciprocal customs boundaries and restrictions on both import and export trade. And these difficulties, bad as they are, are outweighed by the terrible depreciation of the currency, which, on the one hand, causes the import trade to become one of the heaviest burdens on the public finances and national economy, and, on the other, compels the other countries to erect a customs frontier against the natural export tendency of Austria. As long as the Austrian currency is not raised to a standard averaging from 7 to 8 kronen relatively to one Swiss franc, by the help of credits granted by the League of Nations, Austria will not be in a position to exchange goods with the surrounding National Succession States on the same terms as Czechoslovakia and Germany.

So long as these conditions continue, a revival of Austrian economic energies is quite out of the question. All measures concerning credits which do not tend to raise the kronen exchange, *previous* to the introduction of a new currency, to the above-named standard, or at least to a standard considerably facilitating trade and commerce (from about four to five kronen to one Swiss franc), must in the end become a vain sacrifice and could have but a transient effect. The awful consequences of the deep currency depreciation are demonstrated by the Austrian budget.

THE BUDGET

The currency depreciation is one of the principal causes of the appalling height of the deficit and the expenditure figures. According to the latest budget for the second half of 1921, the balance between the relation of revenue and expenditure appears in Table I.

The figures of the table alone serve to show the cause to which the half-yearly deficit of 25.4 billions kronen (yearly deficit over 50 billions) is to be ascribed. It is the consequence of the currency depreciation and of the dearth of imports occasioned by it. The loss comes in consequence of the deterioration of the rate of exchange which has been calculated at the rate of 100 Austrian kronen equal to one Swiss franc, though the rate of exchange has since become still more unfavorable in spite of the action planned by the League of Nations. The result has been a loss of 10,380 millions kronen on the government

TABLE I

RELATION BETWEEN REVENUE AND EXPENDITURE, JANUARY 7-DECEMBER 31, 1921

Million Kronen Percentage

I. Expenditure

Loss in consequence of the deterioration of the rate of exchange:	1 State-monopolies	2,184.16	16.2
	2 Railways	1,755.69	
	3 Public debts	2,337.70	
	4 Government contribution to the private pre-war debts according to the Treaty of St. Germain	1,960.00	
	5 Government contribution towards the payment of foodstuff prices	10,286.00	
	6 Other government contributions in administration and enterprises	395.45	0.8
	TOTAL	18,913.00	38.0
National debt services (interest and redemption)		2,282.30	4.0
Civil service and pensions fund		14,117.10	29.0
	TOTAL	35,312.40	71.0
Other sundry expenditure		14,184.10	29.0
Total of expenditure		49,496.50	100.0

Million Kronen Percentage

II. Gross-revenue

Capital levy	500.00	2.0
"Income tax" (assessed according to the income of the tax payer)	868.60	5.0
Other direct taxes	409.30	
Customs	2,895.30	12.0
Excise	790.10	3.0
Stamps and other similar duties	1,962.00	8.0
TOTAL	7,425.30	30.0
Monopolies	5,194.00	22.0
Government enterprises	6,530.50	27.0
Export licenses	900.00	21.0
Realization of government property and loans	2,033.00	
Other revenues	1,992.30	
Total of revenue	24,075.10	100.0
Deficit	25,421.40	

imports of foodstuffs; *i.e.*, the government paid per head of the population in one year, 3,200 kronen, in order to reduce the price of foodstuffs (flour, meat, fat, milk). The low exchange rate is also to be held responsible for losses on other imports, especially on coal for the railways and material for the tobacco monopoly, losses amounting to 8,633 millions kronen in half a year. Altogether, 18,913 millions kronen in half a year and 37.8 billions in a year, that is 38 per cent of the total expenditure or 74 per cent of the deficit, is accounted for by these losses. Could the Austrian krone be raised to two Swiss centimes the above named sum of 18.9 billions would be reduced to about 9.456; with a rise to four or five Swiss centimes, the loss in consequence of the deterioration of the exchange would play no part at all in the budget. This shows quite clearly the importance of a serious and efficient foreign credit action.

CIVIL SERVICE EXPENDITURE

But the most distressing effects of the currency depreciation have fallen on the civil service and pensions expenditure which has reached a pitch quite disproportionate to a small country. This division of the expenditure, including the salaries of employes and workmen in public enterprises, amounts to more than 14 billions kronen for half a year or to 28 billions kronen for the whole year. As it has since been found necessary to raise salaries, this sum added to the government contributions towards the civil service expenditure of the provinces and their capitals, will actually come to 37 billions kronen a year. However, one must not forget that a large part of the civil service expenditure falls not to the share of the government administration but to national enterprises, as the whole railway system has been

nationalized. Of the above mentioned 14 billions for the six months estimated, 4,467 millions fall to the share of the railways, 1,146 to that of the post, telegraph and telephone, 1,050 to the subsidies for the provinces and municipalities. Even the army estimate (30,000 men and officers) which amounts to 914 millions half-yearly is included in this figure. All these expenditure figures can be rightly understood only when compared with the dearth provoked by the currency depreciation.

On the average, the civil servants' pay still falls short of the often centupled advance in price for all commodities as compared with that ruling before the War, particularly for clothing, shoes and also most foodstuffs. Accordingly, the standard of life of those classes engaged in civil work has fallen, while at the same time other classes more favored by the ruling circumstances, farmers especially and capitalists making money transactions or trading in wares, were able to realize great profits. The brain workers have to bear the brunt of this hard struggle and with them suffer the principal supporters of the intellectual and social reconstruction of Austria. The following data may serve to illustrate this injustice. The Revolution has encouraged certain despotic tendencies in the social policy which have caused a hardly justifiable re-grouping of the economic conditions. The salary of a second waiter has been multiplied by 62; that of a government official of the lowest rank by 37; that of a departmental head with university training in one of the ministries, or of a professor in the university only by 16, and that of an official of the fourth rank, chief of a department in a ministry, by 11. These figures show distinctly enough the economic disadvantage under which the brain work-

ers, the persons most indispensable to the organization of the task of reconstruction of the country, labor.

No doubt, the number of civil servants is far too large for so small a country; *i.e.*, 264,467, of which the railways supply 72,951; the post, telegraph and telephone, 32,201; the army, 30,000. The families included in this figure amount to 751,564 persons out of a total population of 65,000,000. A considerable part of them is engaged in the national transport system, which, it is true, works with a great deficit, or the monopoly plants for tobacco and salt and in the "national industry works," an enterprise in the form of nationalized economies. It will, however, prove impossible to reduce the staff of civil servants before a general reconstruction that will afford opportunities for these employes to exchange their present government employments for private positions. Likewise, a cutting down of salaries and wages can follow only upon the effect of an adequate improvement in the rate of exchange, making itself felt in a fall of prices for all commodities. Compared to the civil service expenditure the other real expenditure on administration is of no great importance (14 billions kronen in the half-year), especially as 1,829 millions are included for grants to the finances of the provinces and municipal districts. The estimate for education names a sum of only 403 millions kronen, that is eight-tenths of one per cent of the total expenditure for the six months' budget.

MONOPOLIES AND NATIONAL ENTERPRISES

Although all articles produced under government monopolies have gone up so high, and the railway tariffs and postal rates have been raised so far as to make them a heavy burden for

economic life, it is only the so-called "fiscal monopolies," tobacco, salt and saccharine, which yield positive and not inconsiderable returns; other national enterprises, as railways and post, are worked at a loss. This loss is to be attributed chiefly to the enormous sums spent on wages and raw materials, owing to the depreciated currency, quite aside from undeniable mistakes in the management of the works, defective or unbusinesslike organization and the often irrational employment in which the staff are engaged. Table II gives the prevailing net profits and losses for figuring in the six months estimates (that is, after deducting the costs for the staff from the expenditure figures) in millions of kronen.

The net revenue of the monopolies is therefore counterbalanced by the government enterprises, so that the total deficit amounts to 4.6 billions in half a year. The most serious item on the side of liabilities is furnished by the state railways, the deficit of which amounts to 9 billions a year, less the offset formed by the railway traffic taxes, which though not yet booked among the receipts are expected to run up to roughly speaking 2 billions kronen. The huge deficit is principally due to the large expenses for coal and other materials, which are computed at not less than 1,756 millions kronen half-yearly. The low rate of exchange must also be made responsible for 2,184 millions kronen lost half-yearly on the gross proceeds of the monopolies (for tobacco alone, 2,164 million) over the purchase of raw materials from abroad. This together with the high expenditure for salaries and wages accounts for the bad returns on the national enterprises.

TAXES

According to the huge increase of the expenditure, the pressure of taxa-

TABLE II

NET PROFIT AND LOSS IN GOVERNMENT MONOPOLIES AND NATIONAL ENTERPRISES

	<i>Profit</i>	<i>Loss</i>	<i>Stand of capital on December 31, 1921</i>
I. Monopolies			
Tobacco.....	723.1	....	8,564.1
Salt.....	228.6	....	376.4
Saccharine.....	100.0	....	3.0
Mineral Waters.....	1.2	....	....
Lotteries.....	38.7	....	....
TOTAL.....	1,081.6	....	8,943.5
II. Enterprises			
Forests, estates.....	217.7	....	2,810.0
Mines belonging to the state.....	6.9	....	119.3
Railways.....	....	4,599.0	78,665.6
Post.....	....	353.7	39.9
Telegraph and Telephone.....	....	144.3	2,491.1
Mines.....	14.8	....	576.0
Industrial plants.....	....	743.9	3,573.4
Sundry smaller enterprises (printing offices, theatres run to the state, etc.).....	33.3	146.5	897.0
TOTAL.....	1,354.3	5,978.4	98,115.8
Net loss.....	....	4,624.1	....

tion had to be applied to the utmost extent. Among the provisions to meet the extraordinary demand, the "single great capital levy," decreed on July 21, 1920, ranks first. This tax is levied on all unencumbered chattel, real and personal, according to a progressive scale, and has to be paid by individuals as well as by corporate bodies. The scale for individuals slides from 3 per cent on a capital of 30,000 kronen to 65 per cent on 10 millions kronen and over. The tax on the greater part of the capital property will average from 30 to 45 per cent, while the joint stock companies have to pay a uniform tax of 15 per cent, beside the high taxation for earned income. The shares in the shareholders' hands are exempt from the tax. The levy on capital is designed partly for the payment of war debts, partly for the purchase of

foreign values and the diminution of the circulation of bank notes. The capital levy is expected to yield a return of about 12 billions kronen, about 8 billions having already been received as a privileged advance payment in the first half of 1921. This sum was used for the payment of debts as advance payments were permitted partly in war loans and treasury bills. The further returns of the capital levy will come due during the coming years and are prelimited at 500 millions kronen for the first half of 1921.

Beside the capital levy, destined to meet the extraordinary expenditures, the direct profit tax and especially the "income tax," assessed according to the income of the tax payer, have been raised as far as possible to increase the ordinary revenue. The burden of this rise in taxes is felt all

the more as it coincides with a heavy struggle for existence; the manufactures have to fight in order to be able to keep pace with upward movement of wages and prices for raw materials. The greatest part of the direct taxation involves the inhabitants of towns and, in the first degree, the crafts and manufactures and the profits of commercial and banking concerns with a fixed abode. It is much to be regretted that for technical reasons innumerable intermediary profits could not be taxed. The classes mentioned have to bear the whole burden of the government taxes.

So far, the farmers have had to contribute a small share consisting of a perfectly inadequate ground and house tax (62 millions kronen yield 3 millions of taxes a year) added to an income tax, the collection of which in the country side is not carried out energetically enough. Out of a half yearly total of 1,778 millions kronen at which the direct taxes are pre-eliminated, one-half (868.6) is furnished by the considerably raised income tax. According to the scale for 1921, the tax rises progressively from about 1.5 per cent on an income of 30,000 kronen to 60 per cent on all incomes exceeding 1.2 millions kronen. As all incomes accruing from either house or landed property, chattels, personal or business, are further encumbered with profit duties on which an extra government tax of 100 per cent is charged, it may easily be gathered that Austria has reached the extreme limit of the tax payers' capacity. A remedy can be found only in a proper taxation of the farmers' income and an energetic, though technically difficult effort to make all those dealers and speculators contribute to the national finances who, in drawing huge profits out of their undeclared transactions in money or wares, give an ever renewed impetus

to quite unjustifiable rises without doing any useful economic work.

The excises have also been very much raised, *e.g.*, the wine tax by 400 kronen a hectoliter; the beer tax by 20 kronen on each degree of beer wort per hectoliter; the spirits tax by 100 kronen per liter of alcohol; the sugar tax by 160 kronen per 100 kilogram; but the total excise revenue (amounting to about 790 millions kronen half-yearly) lags far behind that of the direct taxation, seeing how little the population can spare for these articles. The stamp duties are also very high and mean a heavy charge on the whole commercial life which is further augmented by a duty on the transfer of foreign exchanges and values and by the railway transport duties. The latter (averaging 30 per cent on the passenger and freight rates and consequently going up simultaneously with these rates which are many times what they were before the war) are pre-eliminated at 1,015 millions kronen per half year; the stamp taxes, at 947 millions.

A very considerable portion of Austria's revenue is contributed by the customs, to the disadvantage, it is true, of the consumers and of the producers, as the prices of nearly all necessities of life have been very much raised by the customs duties. As these have to be paid in gold or in an equivalent for gold, the government levies additional duties when the customs are paid in paper money; since May 1, 1921, these have been raised a hundred-fold on some articles, and to one hundred and thirty-fold on the nominal gold customs duties for articles having to pay excise fiscal custom, such as coffee, tea, rice. Therefore, the total revenue of the customs is pre-eliminated at not less than 2,895 millions kronen for six months or 5,790 millions per annum. These

costs on being added to the prices of commodities, occasion an increase of wages. In spite of the greatest exertion, the total of the taxes collected amounts to not over 30 per cent of the total gross revenue and 14.8 per cent of the total expenditure, while monopolies and national enterprises play by far a greater part on the assets as well as on the liabilities side of the budget.

While since December, 1920, the increase of the railway tariffs, postal rates, stamp duties and additional customs duties brought a surplus revenue of 9.6 billions kronen, and while about 3 billions could be saved by the gradual reduction of the government contributions towards the cost of food-stuffs, a new railway tariff for passengers and freights introduced on July 1, 1921 will yield a surplus revenue of 6 billions per annum and an automatic surplus revenue of the traffic duties of 1.4 billions as prelininated in the budget. This was necessitated in order to allow a raise in the salaries of the government officials. Meanwhile, the expenditure has been augmented quite disproportionately by permitting higher wages. The deficit of the coming budgetary period will consequently be greater if the currency depreciation should continue. In order to provide for this expenditure a new increase of the fiscal customs tariff, stamp duties, the duty on the transfer of stocks and shares, and on tobaccoprices, and further a radical reduction of the government contributions towards the flour and bread prices is planned. The latter measure will be felt very severely by the consumers.

THE NATIONAL DEBT

No less a burden than that of the expenditure is the capital debt of a country with a population of six millions whereof nearly one-third live in

Vienna and the provincial capitals. This is composed of the public debts of former Austria carried over to the account of the Republic of Austria as dictated by the Treaty of St. Germain and of the new national debt of the Republic of Austria. By the terms of the Peace Treaty the Austrian Republic, as the lawful successor to the old Monarchy and supposed "accomplice" in the Great War, has to bear the full burden of her predecessor's debts. They form a list of figures which must act as a drag on the work of reconstruction from the very outset and tend only to demand greater sacrifices for this purpose on the part of the foreign powers. On June 30, 1921, the public debt of former Austria (pre-war and war debts of the Monarchy) amounted to 28,340 millions kronen, nominal value, to which must be added nearly as high a sum for the augmentation of the debt caused by the currency depreciation, *i.e.*, 24,859 millions. Consequently, that part of the debt of former Austria taken over by the Austrian Republic burdens that country with no less than 53.2 billions kronen. Nevertheless, the nominal national debt of former Austria has been reduced, thanks to redemptions made by the new Austrian Republic, by as much as 9,694.5 millions (from a total of 82,196 millions on June 20, 1920, to 72,501 millions nominal value on June 30, 1921). This reduction was managed by the war loans, paid into the treasury by way of a levy on capital, and by the redemption of the war profits tax (about 9 billions) and the "N.U.M. credit" granted by the Netherlands. In the meantime, the currency depreciation of the krone to one-third below last year's level has alone sufficed to increase the burden of the debt despite all redemptions. A reduction or redemption of the national debt would seem impossible

without a thorough reform of the currency. Again we may see that the sole means of reconstruction is a raise of the rate of exchange, whereby the debt would at least be reduced again to its nominal level.

The total of Austria's *new* public debt already amounted to 59,259 millions kronen on June 30, 1921, to which sum must be added the foreign credits for foodstuffs and raw materials, as far as the accounts for them have already been settled and met by bonds. Computed at their nominal value, *i.e.*, at par before the War, they come to 464 millions kronen in gold, but to 57,434 millions kronen if computed at the present value of the kronen and considering the difference in the rate of exchange. Those foreign credits of at least 27 billions for which so far no bonds have been issued on the part of Austria are not taken into account any more than the further currency depreciation which occurred after June 30, 1921. So the debts run up by Austria herself amount to 117 billions kronen during the first two and one-half years of this Republic's existence; adding to this sum, the share of the old Austrian debts allotted to her by the Peace Treaty, we arrive at a total charge of 170 billions kronen (28,333 kronen per head of the population). The interest and redemption service for this debt requires, altogether, 4,620 million kronen half-yearly (that is, 9.2 billions per year). On the other side of the scales, we find the national property of the Austrian Republic,

although it is not available, and, further, the various assets of the state itself. The latter are composed of the capital invested in the monopolies and national enterprises (estimated at about 96 billions kronen) and of all the other movable and immovable property under government administration (public office, buildings, inventories, etc.) for which no reliable basis for valuation is available.

OTHER OBLIGATIONS UNDER THE TERMS OF THE PEACE TREATY OF ST. GERMAIN

But to fill the cup to the brim, Austria has been placed under the following additional obligations, resulting from the Peace Treaty, for one-half of the year 1921: balance of costs for the Vienna Section of the Reparations Commission, nominal value kronen, 250,000, *i.e.*, 32.8 million kronen under prevailing conditions (3.75 millions nominal value or 303.8 million kronen for the corresponding half of 1920); further, a government indemnification of two billion kronen granted to Austrian debtors for losses incurred through their being bound over to redeem their foreign private pre-war debts up to former nominal value, and for the liquidation of Austrian property abroad; 200 million kronen for delivering up materials of warfare; finally, 1.4 million kronen to defray the costs of the International Danube Commission; altogether, a total surplus charge of 2,238 million kronen.

CHAPTER VI

The Currency Problem of Austria

By DR. EMANUEL H. VOGEL

Professor in the University of Vienna

THE fate of Austrian currency best shows the serious consequences of the Peace Treaty and the dismemberment of the old Monarchy which formed a homogeneous simple territory as far as customs and currency were concerned. At the beginning of the War, the currency of the old state was on the whole consolidated. By an appropriate exchange policy, the Austro-Hungarian Bank succeeded in maintaining the gold parity of its notes.¹ On July 23, 1914, the bank boasted a metal reserve of 1,589 million kronen and a bank note circulation of 2,130 millions; *i.e.*, 75 per cent was covered in gold. During the War this relation sank as inflation increased. At the time of the break-down of Austria-Hungary, November, 1918, the circulation of bank notes amounted to 35.6 billion kronen, the outstanding debts, *Giroguthaben*, to 7.1 billion; that is, the current liabilities amounted, altogether, to 42.7 billion kronen, covered by the metal reserve only to the extent of eight-tenths of one per cent. Simultaneously, the value of the Austrian krone in the foreign markets rapidly depreciated. New York bills in Vienna which, at the end of August, 1914, noted 5.12 kronen, rose at the end of 1915 to 7.85 kronen, the price of the dollar in Vienna; at the end of 1916, to 9.56; after the break-down at the end of November, 1918, to 15.82; at the end of June, 1919, to 30.25; in October, 1919, to 103; in December, 1919, to 155; in February, 1920, to 250; in June, 1920, to 148; in October,

1920, to 405; in December, 1920, to 659; in April, 1921, to 666 and, on July 23, 1921, to 846 kronen.

The dreadful depreciation of the currency illustrated by these figures, set in with the break-down of the monetary unity and with the process of a total separation of the single Succession States from the formerly uniform currency system of the Monarchy. This process of separation was also accompanied by sad consequences for the bank notes of the other Succession States, though these were distinguished from the Austrian notes by being impressed with a stamp to show the country to which they belonged. The rate of exchange of these notes sank likewise below the level of that of the uniform notes of former Austria in the foreign markets. The depreciation within the five small new currency units differed only in extent from that of Austria, and was, of course, modified according to the degree of the economic consolidation and equipment occasioned by the terms of the Peace Treaty. The first to begin with the currency separation was Jugo-Slavia, which on January 8, 1919, ordered the Austro-Hungarian notes on Jugo-Slav territory to be stamped with a national mark; Czecho-Slovakia followed suit by the law of February 25, 1919; then came Poland and, at last, Hungary in 1920.

All the Succession States carried out these measures without first trying to arrive at an agreement either with the Austro-Hungarian Bank or with the banks of neighboring countries, though an understanding with regard to an

¹ Irving Fisher, "The Purchasing Power of Money," New York, 1911.

organized separation of the currencies would have been best for all concerned. With the creation of independent national currencies, their independent quotations were started in the foreign markets first on an approximately even basis and later, in 1919 and 1920, with an always greater differentiation to the detriment of the remaining and also nationally stamped Austrian currency. The figures in Table 1 show the enormous change in the value of the Austrian krone; here the rate of exchange

lowed; the export, still prohibited. Up till now, the *Auslandskronen* have been quoted higher than the *Inlandskronen*, since the former could be used for payment not only in Austria but also abroad, and as their available number is limited, while the latter may as a rule be used for payment or investments in Austria only. Table 2 shows the movement of the rate of exchange of the cheques on Vienna in Zurich (*Auszahlung Wien, Geldkurs*), *i.e.*, the rate of exchange of

TABLE 1
RATE OF EXCHANGE ON CHEQUES ON ZURICH IN VIENNA

	1918	1919	1920	1921
January		324.64	3,928.00	.....
February . . . . .		.....	.....	(14.) 11,000
March		410.53	3,865.38	.....
April . . . . .		.....	.....	(30.) 11,650
May		469.16	3,492.00	.....
June . . . . .		.....	.....	.....
July		618.69	2,735.18	(5.) 12,590 (22.) 13,925
August . . . . .		.....	.....	.....
September		1,022.00	4,119.00	.....
October	(31.) 230.50	.....	.....	.....
November	(30.) 273.25	2,127.86	7,521.69	.....
December	(30.) 323.25	.....	10,175.00	.....

of the cheques on Zurich in Vienna shows the movement in Austrian kronen. (Where no specific date is stated, monthly average quotations are given.)

A still more distinct language is spoken by the rates of exchange in the chief money markets of Europe: Zurich, Amsterdam and London. As Austria had prohibited the export of kronen bank notes with the purpose of stopping the overstocking of foreign markets (without, however, being able to prevent smuggling), a difference was produced between the rate of exchange of "inland kronen" *Inlandskronen* and "foreign kronen," *Auslandskronen*. At present, the import of kronen is al-

the *Auslandskrone*, while the rate of exchange of the *österreichisch gestempelte Kronennoten* (bank notes stamped by the Republic of Austria) has always been some points lower than that of the *Auslandskronen*. Not until some time after the prohibition of import embargo for kronen had been removed did the rate of exchange of the cheques on Vienna drop to the level of the kronen bank notes.

This survey shows well enough that the real catastrophe of the rate of exchange only took place *after* the War in the years 1919 and 1920. Before the separation of the currencies, the Austrian krone noted 42.50 centimes and

TABLE 2
CHEQUES "ZURICH-VIENNA" AT ZURICH (100 KRONEN AND CENTIMES)

Month m. = medio, u. = ultimo	1918	1919	1920	1921
January .....	.....	{ m. 30.15 u.	{ m. 2.30 u. 2.05	{ m. 1.22½ u. 1.77½
February .....	.....	{ m. 24.50 u. 23.40	{ m. 2.05 u. 2.35	{ m. 1.50 u. 1.30
March .....	.....	{ m. 24.00 u.	{ m. 2.40 u. 2.70	{ m. 1.37½ u. 1.55
April .....	.....	{ m. 18.00 u. 18.75	{ m. 2.75 u. 2.70	{ m. 1.70 u. 1.50
May .....	.....	{ m. 21.00 u. 18.75	{ m. 2.70 u. 4.25	{ m. 1.30 u. 1.35
June .....	.....	{ m. 17.00 u. 18.50	{ m. 3.70 u. 3.85	{ m. 1.25 u. 0.97
July .....	.....	{ m. 16.50 u. 11.50	{ m. 3.70 u. 3.42½	{ m. 0.82 u. 21. 0.77
August .....	.....	{ m. 12.50 u. 11.75	{ m. 3.00 u. 2.80	.....
September .....	.....	{ m. 8.50 u. 9.00	{ m. 2.77½ u. 2.80	.....
October	{ u. 42.50	{ m. 5.00 u. 5.25	{ m. 2.25 u. 2.02½	.....
November	{ m. 37.75 u. 32.75	{ m. 4.65 u. 4.00	{ m. 1.75 u. 1.95	.....
December	{ m. 30.25 u. 30.50	{ m. 3.00 u. 3.25	{ m. 1.65 u. 1.55	.....

even some time after the Revolution in the middle of the year 1919 (June 28, 1919) it maintained a rate of 18.5 centimes, a level which not even the boldest financial plan on the part of Austria or of the League of Nations would dream of reaching again. This proves that by a timely interference the déroute of the Austrian exchange might have been inhibited or avoided entirely at much smaller sacrifices than are now demanded. It proves further, that this depreciation was brought about by the one-sided measures of the Succession States, which were carried through without the slightest regard for the Austro-Hungarian Bank or for the exchange of the notes left to Austria. Another reason was the enormous inflation of bank notes in Austria, herself, which became inevitable because of the

financial wants of Austria, the terrible shortage of commodities, the rise of all prices, chiefly of those for imports, naturally caused by the depreciation itself, and so on in endless succession. Still the Austrian krone retains a higher purchasing power at home than abroad.

But this one isolated fact which is favorable for the consumer, now begins to vanish, as the rise due to wild speculation with wares and foreign values has brought the prices of commodities and wages almost on a par with those in foreign countries. In some cases they have even surpassed them. What this means while the Austrian krone is almost completely depreciated (on July 21, 1921: 0.77 centimes at Zurich) can well be imagined. So it came to pass that of late

even the Hungarian krone, which had always been valued lower, gained considerably over the Austrian krone on July 21, 1921: 1.85 centimes) so that the exchange of goods with this neighboring country was rendered much more expensive for Austria.

The financial scheme of the League of Nations which was abandoned almost as soon as it had been started could effect only a quite transient improvement of the rate of exchange on the cheques on Vienna at Zurich to 1.70 centimes (April 16, 1921). Beside the continuous delay of the promised international credits, the Austrian rate of exchange was prejudiced by the news that the program of the delegates of the League of Nations provides for a stabilization of the rate of exchange only on the bases of one to two, that is, hardly above the present level. (But not even for this plan could the most necessary condition, the suppression of the general mortgage laid on all the revenues of Austria by the peace terms, be obtained.) The presumable failure of such a scheme, even if it could be carried out with fewer sacrifices, was valued accordingly in the money market. Beside the repeal of the kronen import embargo and its consequence, the equalizing of the Auslands- and Inlands-kronen depreciated the rate of exchange of the Auslands-kronen, as the reason for its being valued higher was partly removed. Soon after, the rate of exchange of kronen bank notes and cheques dropped rapidly to reach its lowest level on July 21, 1921. The sole consolation for this financial ruin of a country may perhaps be found in the fact that, on the same day the Polish mark, though from other causes, was rated at Zurich at only 0.32 centimes and was somewhat nearer the low water mark.

The situation of the Austro-Hun-

garian Bank, as far as it has the function of issuing notes for the Republic of Austria, has naturally become worse. The circulation of stamped Austrian bank notes already amounted to 50.14 billion kronen on July 7, 1921, the other liabilities due immediately, to 9.1 billions; these were covered by a mental reserve including gold bonds only up to 5,220,132 kronen. The principal assets are the treasury bonds issued by the government and presented at the Austro-Hungarian Bank to the amount of 47.8 billion kronen. When in January, 1920 the Austrian bank notes inflation was disclosed for the first time apart from that of Hungary and that of the non-stamped and nationalized notes of the former Monarchy, the Austrian circulation amounted to only 13.2 billion kronen, whereas the gold reserve amounted to 222.6 million (beside 11.4 millions gold bills and 57 million silver currency). The total bank notes circulation of the former Monarchy amounted to 35.6 millions kronen at the end of 1918, *i.e.*, previous to the real financial explanation.

Table 3 shows the development of the bank note circulation in millions kronen.

On top of all this, there came the liquidation which is forced upon the bank by article 206 of the Treaty of St. Germain. This was only actually begun in the year 1920. According to the wording of the Treaty the former managers of the bank, as the legitimate representatives of the shareholders and the Austrian and Hungarian government, are totally excluded from the liquidation, and only the liquidators nominated by the Reparations Commission are charged with the liquidation. The first difficult problem of liquidation concerned the remaining gold reserve of the bank (still 222.7 millions kronen in gold on November

TABLE 3
INFLATION IN BANK NOTES IN AUSTRIA

Situation on	Metal reserve (incl. of cheques)	Total circulation	Circulation of Austrian notes	Circulation of Hungarian notes
December 31, 1918.....	342.65	35,588.6	.....	.....
December 31, 1919.....	297.36	53,109.4	.....	.....
January 31, 1920.....	291.08	56,772.8	13,266.8	.....
March 15, 1920.....	286.76	60,197.3	14,793.0	.....
November 15, 1920.....	325.73 ^a	74,124.4	25,977.9	12,000.0

^a The fluctuations in the metal reserve are produced by the changing state of the gold cheques included (November 15, 1920: 46.6 billion) in the figures for the year 1921 most of the metal reserve is excluded or belongs to the liquidation stock.

INFLATION IN BANK NOTES IN AUSTRIA AND HUNGARY

Situation on	Austria		Hungary	
	Metal reserve	Circulation of banknotes	Metal reserve	Circulation of banknotes
May 23, 1921.....	5.06	44,244.3	0.18	12,725.1
May 31, 1921.....	7.09	45,583.1	0.18	13,685.6
June 30, 1921.....	6.63	49,685.1	0.18	18,095.9
July 7, 1921.....	5.22	50,142.6	0.18	17,923.8

15, 1920; 46.6 millions gold bills on foreign countries and 56.4 millions in silver currency).

Although only Austria and Hungaria and not the Succession States are liable for the foreign circulation of the old Austrian bank notes according to the Peace Treaty, all the Succession States try to make their claims on the gold reserve. By order of the Reparations Commission the bank handed over, to begin with, an amount of 65 million gold kronen to the liquidators out of which advances were given to the Succession States. Austria received, after a credit already paid back to Holland had been deducted, about 8 million gold kronen.

Concerning other problems, too, the enforcement of article 206 of the

Treaty of St. Germain caused the greatest difficulties. It is now generally acknowledged that the strict application of these decisions of the Peace Treaty cannot be carried through; the liquidators are now bringing about an agreement between the Succession States concerned, regarding the problem of recovery of the bank notes, the liabilities to the creditors of the notes, etc. But this attempt at some agreement encounters great difficulties in the Succession States, so that all these complicated legal and financial questions are waiting for settlement—much to the damage of the Austrian currency whose rate of exchange has to suffer by the uncertainty concerning finances and currency. A settlement will go far toward stabilization.

SUMMARY

The whole situation of Austrian finance is not promising for, as we have seen, it is an immediate consequence of an unequal distribution of burdens at the creation of the new National States out of the ruins of the old Monarchy. Under these circumstances the bank note inflation appears as a necessary consequence of the general financial situation; as a matter of course, it continues to depress the value of the currency and forces up the price of all commodities. It is characteristic enough that neither the announcement of an "action of the League of Nations" and the financial program elaborated for this purpose, nor the promised credit of foreign values could bring about the expected improvement on the kronen exchange in the foreign markets. On the contrary, shortly after, the Austrian krone suffered a slump down to 0.87 centimes (on cheques, Zurich-Vienna), and closed with 0.90 centimes for cheques and 0.79 centimes for stamped Austrian bank notes on July 3, 1921.

We may infer from all these facts that preliminary to the introduction of a new currency, a rise of the Austrian kronen value must be the aim. By the accumulation of ample gold funds and suitable measures based on extensive instalments of credits from the League of Nations in all the principal money markets, the krone might be raised to equal 8 Swiss francs on the average, thus enabling Austria to trade freely with the surrounding National States. *At the very lowest a rate of exchange of about 4 to 5 ought to be attained* if a move toward reconstruction is to be made with any prospect of success. *Subsequent* only to having reached such a desirable basis by easy stages and within a suitable period of time so as to avoid any abrupt changes (endan-

gering the export manufactures with the effects of a presumable slump), the introduction of a new currency and the stabilization of the new rate of exchange might be attempted. This will necessitate a continuation of foreign support in future. The proposed respite of only twenty years before the enforcement of the right of a general mortgage on the Austrian revenue, will prove too short under these circumstances as there must be a possibility of prolonging open foreign credits beyond this period.

An attempt at stabilization on the existing basis of 1 or 2 would allow only a hand to mouth existence in the present fashion, but not a definite reform. In the long run the majority of the people will be unable to bear all the restrictions of a mental, intellectual and physical nature. In this respect it may be important to point out particularly that the outward show of luxuries in Vienna by its numerous foreign visitors, does not allow any inference to be drawn as to the real standard of life of the laboring classes. If today love of pleasure and luxury are to be seen, if the restaurants, cafés, and pleasure resorts are crowded, it must be regarded as one of the sad symptoms attendant on any great crisis in any country. The lack of confidence in the constancy of the value of the currency leads to reckless spending as nobody likes to risk a lasting investment of capital or to save up money for the future. But it would be a great mistake to believe the true born Viennese rolls in luxury. In reality it is only the people who have enriched themselves during and after the War and who are now filling the ranks of the war-profiters and speculators by making extraordinary gains in an unscrupulous manner, running up the prices of all necessities of life, dealing in foreign values and contributing to the depreciation of the

Austrian krone. To a great extent this set of people is intermingled with foreigners, chiefly former "war-refugees" from Eastern Galicia and Bucovina, who, after having settled down in Vienna permanently, make the best of the prevailing conditions by accumulating riches.

In this respect the low rate of exchange has had the most serious consequences for Austria. It first led to selling off Austrian necessities, which wandered abroad frequently only to be re-imported after a time and sold at a high price when the shortage of commodities became intolerable. This favorable opportunity over, an unrestrained speculation in foreign values and exchanges set in to the detriment of the rate of exchange and purchasing capacity of the krone at home and abroad. In Austria many of the parasites described contribute vastly toward the rise in prices and there is no legal means to stop them or even to subject them to an effective taxation. Apart from this motley crowd of speculators from home and abroad, the set securing the doubtful fame of Vienna as a center of "luxuries and pleasures,"

is formed of foreigners. They flock together from the National States and the abnormally high purchasing power of their money makes Vienna the "cheapest city in all the world" for them. Exactly like the above-mentioned set of Austrian and foreign speculators they are in a position to satisfy a taste for the luxuries of life which is denied to the rest of the population. The restaurants, places of entertainment, big emporiums, theatres and even the places where serious art is cultivated reckon with the "new rich" as their chief customers, whereas the enjoyment of all the refinements of art and civilization is denied to the intellectual middle classes of the native population.

The antagonism of the classes and masses has thus been intensified in an alarming degree. A new exceedingly low-bred social layer has come to the surface, the "new rich." It will be a long and arduous task to heal the serious economic, social and, last but not least, the injuries to ideals in the new Republic of Austria and this task will require the steady, organized assistance of the civilized countries of the West.

CHAPTER VII

Austrian Banks

By DR. MAX SOKAL

Manager of the Wiener Giro-und Kassen-Verein, Vienna

IT was prophesied of Austrian Banks, that after the collapse of the Austro-Hungarian Monarchy they would have greatly to reduce their establishments on account of the diminution of their sphere of action, the vastness of their organizations being wholly out of proportion to the requirements of crippled Austria.

So far this hypothesis has been dis-

proved by facts. The banks very soon had to extend their business, to increase their staff, to enlarge their premises; and the turnover of the last financial year, where balance sheets are already available, shows a considerable surplus over that of preceding periods, a surplus, which is, of course, partly accounted for by the steady depreciation of Austrian currency.

In the period immediately following the cessation of hostilities, the Austrian banks were chiefly busy carrying out measures of an economic nature (whether emanating from the state or from organizations and individuals) which were a consequence of arrangements made between Austria and the new states, such as the liability for state bonds, etc. But very shortly afterwards, proper banking set in in Vienna which, beginning with the business in stocks and foreign exchanges, grew in intensity, and with the reconstruction of industry and trade soon embraced all departments of normal banks.

BRANCH REORGANIZATION IN NEW STATES

A transformation and reorganization had to be worked out in the case of branches of Austrian banks situated in some of the new states where the political situation made it necessary to give to the branch of the Austrian bank the status of an independent institution. The Czecho-Slovakian government, for instance, enacted restrictive regulations concerning the admission of branch establishments of foreign banks. Those which exist already must not carry on their business any longer than five years, and even this short lease is made subject to conditions.

Under these circumstances, some Vienna banks preferred to reorganize their branches situated on Czecho-Slovakian territory and others are about to do the same. A similar policy is being adopted in the case of branches in what is now Poland and Jugoslavia. These new banks are, of course, to a certain extent controlled by their mother-institutions which hold a considerable portion of their shares and have come to special arrangements with them. On the other hand, Vienna banks have lately begun to add

to the number of their branches in provincial towns of Austria. This policy is a consequence of the fact that the peasantry, comparatively speaking, is much better off now-a-days than the town folk and that, in this sense, country places have gained in economic importance at the expense of the capital.

Side by side with the branches of Vienna banks, however, new banks have arisen in the Succession States which were intended partly to cater to the special wants of the agrarian population and partly, also, to apply themselves to the trade in foreign exchanges.

The chief interest of Austrian banks centers in the financing of industry but of late, especially in the last year, the strongly increasing transit trade of Vienna has afforded opportunity for all sorts of banking transactions. What the industrial clients demanded of the banks was that they should be provided with capital for obtaining raw material and labor, the nominal cost of both having risen to exorbitant figures, and thus enabled gradually to resume their work in the home market and export trade. The close connection which has always existed in Austria between banks and industrial establishments greatly facilitated that task and the latter could generally rely upon being backed up in case of need by their banks. On the other hand, many industrial undertakings have increased their capital generally with the assistance of banks which assisted willingly with a view to relieving the pressure on their own means which would otherwise have been taxed too highly.

STOCK EXCHANGE DEALINGS

Complicated problems of a technical and economic nature had to be solved by the banks through the constantly growing interest of the public in stock exchange dealings, a tendency which

has become peculiarly marked since the autumn of 1920, the banks making a point as far as lay in their power of keeping away mere gamblers from transactions in stocks and foreign exchanges. A comparison of figures published in the yearly reports of the *Wiener Giro-und-Kassen-Verein* for 1918, 1919 and 1920 throws light on the increasing importance for banks and bankers of the exchange business. The *Wiener Giro-und Kassen-Verein*, it may be stated here, is entrusted with the technical liquidation of all dealings in stocks done at the Exchange and in addition to that, although there is also a Clearing Association of the Austro-Hungarian Bank, with the clearing between the various banks and bankers.

The total turnover of the *Wiener Giro-und Kassen-Verein* amounted as follows:

1. In kronen: 1918, 99,964,291; 1919, 115,354,377; and 1920, 593,214,985.

2. In the number of checks drawn on the institution: 1918, 95,092; 1919, 79,686; and 1920, 255,736.

I may mention in this connection that the system of stock clearing which is employed at the Vienna Exchange, and which is carried out by the *Wiener Giro-und-Kassen-Verein*, is rather unique in its way. It is now being imitated in Prague and Budapest, and by far surpasses that customary in Paris and Berlin. This system makes it possible to clear gigantic turnovers in a very short time with a staff relatively small. Leaving other causes out of the question, it would appear that this high efficiency is one of the reasons why stock exchanges in the new states did not develop intensively. It is a fact that organization and technical superiority play a far bigger part than is commonly thought. The security warranted by a thoroughly efficient clearing is of decisive influence for the

development and the importance of the Exchange.

In other respects, also, for instance in their safes and treasure vaults which are constructed according to the newest and most approved systems, Vienna banks stand on a remarkably high level. Vienna boasts of the most modern bank palaces. I need mention only the *Wiener Bank-Verein*, the *Niederösterreichische Escompte-Gesellschaft* and the stately pile of the *Credit Anstalt*, which is not yet finished. On a great number of other bank premises, reconstructions and improvements have been effected. This modern construction in addition to their splendid organization and their highly trained staff makes Vienna banks extremely capable economic instruments.

FOREIGN EXCHANGES

The disruption of the currency which set in shortly after the collapse of the Monarchy and in consequence of which the new states evolved separate money standards has greatly stimulated dealings in foreign exchanges in Austria. Such dealings, contrary to what was the case up to the autumn of 1920, are now free of government restrictions. There is a clearing in foreign exchanges under the supervision and guidance of the *Devisenzentrale*, State Office for Regulating the Trade in Foreign Exchanges, which since its coming into existence has been able, with very few exceptions, to procure to industry and commerce those foreign exchanges which they required. Restrictive regulations, however, are still in force with regard to the Austrian krone which is transferable from one "inland" account to another only. Its transfer to a "foreign" account is subject to the granting of a special permit by the *Devisenzentrale*.

The fact that since this time last year so many new banks and banking

houses have been established, all dependent upon making a profit out of the trade in foreign exchanges, will alone serve to show that Vienna has become an important center for the trade in this commodity.

Balance sheets of the larger banks, for 1920, as far as they were available up to time of writing, are shown in Table 1.

An examination of these figures will give a clear insight into the economic situation of the moment which is characterized by a large gross revenue, high working expenses, enormous taxation and large pecuniary requirements of customers. A brisk demand for stocks has been alluded to above as being typical of the last few years. This tendency has created interest abroad in Austrian stocks and as a natural consequence, a still stronger demand at home.

INFLUX OF FOREIGN CAPITAL

Austrian economists have been watching this phenomenon with somewhat mixed feelings. A general clearance sale was ironically spoken of in connection therewith, and fear was entertained in some quarters lest Austria's industry and banks pass completely under foreign control. As far as can be judged now, however, the influx of foreign capital has proved beneficial to Austrian concerns; for it must not be overlooked that the Peace Treaty had brought Austria into a position which made her completely incapable of surmounting by her own strength the numerous restrictions and impediments to trade with other countries, and a resumption of relations was made possible only by the interested assistance of foreign capital.

On the other hand, from the point of view of foreign capitalists it may be said that investments in culturally and industrially developed Austria stand an excellent chance of proving advan-

tageous. Many industrial undertakings and banks involve shares of foreign capital, a Belgian and an American group being at present interested in the *Wiener Bank Verein* and in the *Credit Anstalt für Handel und Gewerbe*, respectively; French capital, in the *Boden-Credit Anstalt* and in the *Wiener Kommerzbank*, and Italian financial circles, in the *Niederösterreichische Escompte-Gesellschaft*. Two banks, viz., the *Länderbank* and the *Anglo-oesterreichische Bank*, are the object of special state legislation. It is intended to convert the *Länderbank* into a French and the *Anglo-oesterreichische Bank* into a British banking institution, and to transfer their headquarters to Paris and London respectively; but this change of nationality has to be authorized by the Austrian legislature. Bills to that effect are at present under parliamentary discussion.

Foreign interest in Austrian banks generally took shape when, and where a bank was about to raise its capital. Raising of the capital had continually to be resorted to, in intervals of various duration, these last two years, in order to balance the depreciation of money which had its counterpart in the enormously increased figures of all bank transactions. It is only fair to say, however, that such measures were decided upon and finally taken very cautiously and did not by a long way keep pace with the depreciation of the currency. Table 2 shows the increase of capital of the various banks.

RATE OF EXCHANGE

The favorable opinion of the Exchange in regard to these transactions is proved by the fact that the new shares were invariably taken over smoothly and that the syndicates for their issue were very short-lived. Another proof is furnished by the exchange value of shares.

TABLE 1
SIGNIFICANT FIGURES FROM THE BALANCE SHEETS OF THE LARGER BANKS FOR 1920

	Wiener Bankverein	Roden-Cre- dit-Anstalt	N. ö. Escompte- Gesellschaft	Union- bank	Verkehrs- bank	Depositen- bank	"Mercur"	Central- bank d. deutsch. Sparrk.	Wiener Kommer- zialbank	Steier- mark Escompte- bank
1. Total balance	10,318,350	6,649,675	2,969,272	2,950,704	4,456,954	3,827,160	2,842,924	3,599,724	1,564,365	1,080,577
2. Creditors	8,983,531	5,025,752	2,546,300	2,541,728	3,486,861	3,119,681	2,331,776	2,585,427	1,393,151	916,693
3. Treasury bills and savings bank-books	623,255	.....	48,576	95,679	277,361	148,840	131,729	161,984	13,990	60,039
4. Acceptances	24,500	35,340	34,985	54,384	6,960	14,120	27,377	.....	.....	.....
5. Debtors	7,236,706	5,288,131	2,495,179	2,268,581	3,638,836	2,431,360	2,311,956	1,558,099	1,306,560	1,027,723
6. Bills	438,572	235,347	199,705	180,211	34,382	334,448	117,739	33,733	25,671	9,360
7. Stocks	341,671	146,871	64,966	104,389	90,320	109,771	93,586	127,651	47,509	11,107
8. Payment for syndicate business	146,788	82,718	58,891	22,719	76,644	93,732	44,432	.....	40,443	908
9. Revenue from interest	160,252	63,024	57,242	50,205	43,846	73,674	40,948	44,238	30,907	16,766
10. Revenue from commission business	77,316	46,037	46,977	44,767	110,732	52,964	50,166	35,999	29,992	17,956
11. Profits of foreign values, stocks etc.	156,575	44,245	33,316	42,234	18,150	74,857	41,230	.....	37,053	15,223
12. Salaries, Pensions, etc.	155,937	46,218	48,966	56,239	66,103	69,887	56,945	56,738	23,795	17,786
13. Expenses	89,749	12,307	10,898	21,127	44,913	33,310	14,981	28,712	17,445	15,448
14. Taxes	69,226	49,630	19,014	26,575	13,427	20,618	20,348	10,565	21,361	2,839
15. Net-return	76,775	45,459	36,624	33,418	49,631	76,503	39,341	16,966	35,628	13,900

Note. Values are given in thousand kronen.

TABLE 2
INCREASE IN THE NOMINAL CAPITAL OF IMPORTANT BANKS

<i>Institut</i>	1914	1917	1918	1920	1921 p3. 15. 3.
Anglobank	100,000,000	130,000,000	150,000,000	200,000,000	300,000,000
Bankverein	150,000,000	150,000,000	180,000,000	300,000,000	300,000,000
Boden-Credit-Anstalt	54,000,000	63,000,000	75,000,000	105,000,000	150,000,000
Centralbank d. deutsch. Spark.	30,000,000	30,000,000	50,000,000	80,000,000	120,000,000
Credit Anstalt	150,000,000	170,000,000	200,000,000	320,000,000	400,000,000
Depositenbank	33,000,000	60,000,000	80,000,000	300,000,000	300,000,000
Escomptegesellsch.	110,000,000	100,000,000	100,000,000	150,000,000	150,000,000
Länderbank	130,000,000	130,000,000	160,000,000	160,000,000	160,000,000
"Mercur"	50,000,000	66,000,000	80,000,000	180,000,000	200,000,000
Unionbank	70,000,000	100,000,000	100,000,000	150,000,000	200,000,000
Verkehrsbank	50,400,000	65,000,040	75,040,000	175,000,000	175,000,000
Kommerzialbank .....	.....	30,000,000	45,000,000	150,000,000	150,000,000
Wr. Lombard-u. Escompte- bank	10,000,000	15,000,000	20,000,000	100,000,000	100,000,000

The favorable opinion of bank shares entertained in competent quarters is, of course, largely due to their lucrativeness. Table 3 shows the percentage of dividend paid by banks.

IMMEDIATE PROBLEMS

The preceding sketch will not leave on the mind of the reader an adequate

impression of the task set before Austrian banks unless he remembers constantly how their will to work and their efforts to revert to normal business have to struggle against the obstacles erected by the Treaty of St. Germain. The budgetary position of the state, and in connection therewith the currency question, the economic

TABLE 3
AMOUNT OF THE DIVIDENDS, IN PER CENT, PAID BY IMPORTANT BANKS

<i>Institut</i>	1913	1915	1917	1919	1920
Anglo-östr. Bank	8 1/3	8 3/4	10 5/6	10	
Wiener Bank-Verein	8	7	8 1/2	8 1/2	12
Boden-Credit-Anstalt	20	20	22	20	20
Credit Anstalt	10 5/8	10	12 3/16	11 7/8	15
Escompte-Gesellschaft	10 1/2	11	12	12	14
Länderbank	7 1/2	6	8	6	
Unionbank	8 1/2	7 1/2	9	9	11
Centralbank d. deutsch. Spark.	5	4 1/2	5 1/2	6 1/2	8
Depositenbank	8 1/2	8 1/2	9 3/4	10	12 1/2
"Mercur"	9	7	9 1/2	10	12 1/2
Allg. Verkehrsbank	7.85	6 3/7	8 4/7	10	12.85
Wr. Lombard-u. Escompte- bank	6 1/2	5	5	5	
Wr. Kommerzialbank geg. 1916			6	8	10

policy of the new states, the financial arrangements to be made with them, the payment of pre-war debts (especially kronen debts) constitute so many problems which the managers of Austrian banks have always to keep before them and which continually remind them that the greatest efforts are needed to surmount these difficulties.

Austria is a small country, but it is to be doubted whether even among the larger countries of the world there can

be found one upon which is incumbent the solution of so many complicated problems as confront this advanced post of western culture in Central Europe. It is therefore only natural that an appreciation of the Austrian, or more especially the Vienna, question should take this fact into account. Conditions in Austria have become sufficiently consolidated to make clearly discernible the economic bearing of the problem as shown in the balance sheet of the banks.

CHAPTER VIII

Traffic and Transport in Austria

Compiled by the Ministry for Transport and Traffic

THE transport system of Austria is not the necessary effect of an economic evolution; it is indeed, like the state itself, nothing but the torso, the western fragment of a once united system. Vienna, the former center of traffic, is now situated, with all its central apparatus, on the periphery of a small country. This fact should not be overlooked in considering the transport system and the separate means of transportation.

AUSTRIAN RAILWAYS

The total railway net of the Austrian state railways has, including the small railways, a length of 6,940.05 kilometers; of these 3,415.79 kilometers called *Bundesbahnen* fall to the share of railways in the possession of the government; 302.45 kilometers, to railways belonging to private societies but operated for the government, and 836.76 kilometers, to state railways operated by private individuals; so that 4,555 kilometers are at present operated by the state.

The length of the private railways

amounts now to 921.81 kilometers. The share of the Südbahn Gesellschaft, whose total line was formerly in Austria and extended over 2,334 kilometers from Vienna to Triest, amounts now in Austria only to 703 kilometers, but the company has the administration of 195 kilometers of local railways in Lower Austria and Styria. The Aspang railway, 87 kilometers, Vienna-Aspang, is administrated by a shareholders' company. Independent local railways extend to a total amount of 1,072 kilometers.

In old Austria there were over 25 kilometers of small railways moved by steam, 362 kilometers, by electricity, and 1.24 kilometers of cable roads.

Only the following railways of the Austrian Republic have not been diminished: the western lines (Vienna-Bregenz, Vienna-Passau) and the line to the south (Vienna-Villach-Tarvis) at the Italian frontier. The Südbahn-Gesellschaft carries traffic only to the Jugo-Slavian frontier at Spielfeld, though its lines go further on over Jugo-Slavian and Italian territories,

until they reach Trieste, part of the former Austrian Monarchy. Two of the principal junctions have fallen to the lot of the Succession States, i.e., Marburg to Jugo-Slavia and Franzensfeste to Italy.

NEW FRONTIER LINES AND THE RAILWAYS

To remove the disadvantages of the present frontier lines, the countries now having parts of the Südbahn, Austria, Italy, Jugo-Slavia, have concluded an agreement, the so-called *Régime Provisoire*, which has to remain in force until a final solution of the Südbahn problem. This agreement secures the Südbahn an independent continuation and uniformity. For the administration of the Südbahn the same regulations are in force as for the state railways. The question of the employers, also, is managed in the same manner.

Of the northern and eastern lines, the Nordbahn (Vienna-Krakau), Nordwestbahn (Vienna-Prag-Tetschen-Bodenbach) and Franz-Josefsbahn (Vienna-Prague and Vienna-Eger), but fragments of 41 to 164 kilometers belong to Austria. By the fixation of the frontiers by the Peace Treaty, the transit stations, Gmünd, Znaim, Grussbach and Lundenburg, which are provided with the accommodations necessary to centers of traffic, were given over to the Czecho-Slovakian Republic. In consequence, those parts of the railway lines which remain in Austria lack stations able to collect and to dispose of the flood of goods coming into that country. The technical plants of the Gmünd and Lundenburg stations were especially accommodated to the traffic in the direction of Vienna, in which direction went heavily loaded freight trains; over these lines, the large coal transports were brought from the Czechian and Silesian coal districts having a large export industry.

It was a natural consequence of the formation of new states that customs frontiers should be erected, which render passenger and freight traffic from Vienna to Hungary and Roumania, and vice versa, by the means of passport and customs duties, much more difficult, and indeed, condemn the double-railed mainline, Vienna-Marchegg, formerly very much used, to total lack of traffic, the traffic from Hungary passing Bruck on the Leitha though that line is of smaller capacity. Some improvements in the traffic of the Succession States have been made by different conferences; the final removal of the many remaining traffic difficulties between these states will be the task of the International Conference in Portoroze, planned for September.¹

The unfavorable development of railway traffic caused by the War, and its consequences from which not even the victorious countries have been spared, naturally was felt very heavily by the Austrian railways. The Austrian railways were reduced by the Treaty of St. Germain to the Alpine lines, which labor under difficult grade-building and traffic conditions, and are not much frequented. The Austrian railways were further weakened by the tendencies of the Succession States to withdraw from traffic relations dating back for centuries, while, on the other hand, the Peace Treaty imposed heavy burdens on all Austrian roads for the benefit of the Succession States. Furthermore, the continued depreciation of the currency in Austria and the continual drop in the purchasing power of the Austrian krone abroad, immensely increased the expenditure for salaries and, still further, the expenditure for materials, while the limit for raising the tariff was soon reached, due to the

¹ Editor's note. This chapter was compiled in July.

pauperization of the masses. But the greatest increase in expenditure was caused by the loss of the coal supply districts brought about by the Peace Treaty. This loss resulted not only in the dependency of the Austrian coal supply on the good-will of the neighboring states, which compel Austria to take coal of low grade, but also, because of the extraordinary low rate of the Austrian exchange abroad, in the raising of the price of coal to 180 times the pre-war price.

The bad business results to which this condition must lead are indicated by the following figures concerning the state railways which form the greatest part of the Austrian railway net and therefore determine the general prospect for the entire system. According to the preliminary budget for the present year—definite balances have not yet been published—an expenditure of 16.6 billions kronen stands against an annual revenue of 7.8 billions kronen (chiefly transport returns) so that, including the .4 billions kronen for interest and redemption of railway debt, we find a deficit of 9.2 billions. Of the total expenditure about 8 billions kronen fall to the share of salaries, etc., the rest, to the share of materials. Half of this expenditure for materials is designed for the coal for trains, and of this, in consequence of the bad rate of exchange, more than three billions kronen are accounted for in losses caused by the currency depreciation, which would be spared if the peace parity were reached.

A lasting improvement in this situation can be produced only by the reconstruction of economic life and the abolition of the impediments to traffic. The Austrian railways are endeavoring, either by the utmost reduction in expenditure or by far-reaching raise of revenue to oppose a further diminution of working capacity and revenues.

SALARIES AND EMPLOYMENT

The Austrian state railways employ about 90,000 persons. Of these about 75,000 are definitely employed with annual salaries, and 15,000 are assistants, whose employment is revocable and who have only day wages.

The payment of definite employes consists of a regular salary, plus extra salary graduated according to locality; that is, these employes may be divided into five groups whose pay varies according to the price level of the different places of employment. For instance, this extra salary amounts to 100 per cent of the regular salary in Vienna, and in the locality of the lowest paid group, to only 40 per cent. The wages of the assistants, too, differ according to grouping. In addition, all railway employes now receive "extra dearth remunerations" by fixed rates, *i.e.*, extra dearth remunerations and extra remunerations for the members of the family, which are reduced with the diminution of price level.

The payment of definite railroad employes in the tenth year of employment in Vienna, the family consisting of a wife and one child, amounts yearly (regular salary, extra pay according to locality of employment, extra dearth remunerations and "family-members remunerations" included) to:

	<i>Kronen</i>
For employes with academie training (engineers, etc.)	86.160
For employes with intermediate-school learning (employes in the railway stations or in the administrative offices)	80.568
For engine-drivers	77.404
For conductors	73.252
For railway guards	71.888

The employes used in the traffic service, itself, are given shares of the working result, according to their different work, in the form of set prices (*piece-work*). *Piece-work* is introduced,

particularly in manual and technical work, as premiums, especially in the actual traffic and train service.

All questions concerning the employes as a whole or in their separate categories, or affecting the character of fundamental regulations; further, all measures concerning social or economic institutions for the employed, and, finally and all matters concerning the pensions of employes, are regulated by mutual consent of the authority passing the regulation and the elected representative of the employed.

As far as the up-keep is concerned, long neglected during the War, the railways could make up for the loss of time, but insurmountable difficulties still prevent extensive building activity. Only the principal problems, such as the establishment of institutions necessitated by the fixation of new frontiers and new traffic directions and the erection of buildings for the employes, can be considered. Then, too, lines must be provided to meet an increased pressure of 16 tons on the axle (Achsdruk) and on main lines, 20 tons.

The traffic policy of the state railways has to some extent a fiscal character, in that it varies according to the financial situation of the state. The passenger and the freight tariffs have been raised at several times and reach a considerable height. The freight tariff has already surpassed the world parity (currency depreciation). In general, on the state railways and the more important private lines, the freight rates have increased 150 times, the passenger tariff, 100 times the pre-war rate. Direct tariffs for the traffic with foreign countries could not be fixed on account of the fluctuating situation.

Further, on account of the extraordinary conditions it was impossible to put into force, unreduced, the norms of the International Convention, these

being in pre-war time the general legislative basis of the international railway freight traffic. The difficulties mentioned have brought about the conclusion of special agreements between Austria and the Succession States, providing for the application measures adopted by the Convention of Berne with some exceptions and restrictions. Only concerning the traffic between the Austrian and the Czecho-Slovakian Republic was it possible to put the agreement in force without restrictions.

ELECTRIFICATION PROJECTS AND THE RAILWAYS

As Austria is almost entirely dependent for her coal supply upon foreign sources, after the dissolution of the Austro-Hungarian Monarchy it was the first care of the railway administration to make use of the inland water powers for the railways. At once necessary technical and legal measures were taken concerning the Salzburg-Innsbruck-Bregenz line to the frontier, the Tauern railway (Schwarzbach-St. Veit-Attnang-Puchheim) and the Salzkammergut railway. The execution of these measures began immediately.

In the foreground stands the Innsbruck-Bludenz line (Arlberg railway) which is especially adapted for electrification because of the intensity of its traffic, its steepness, the large water powers near to it, and its long distance from the coal districts. The water power works of the Rutz near Innsbruck and of the Spullersee in Vorarlberg are also destined for railway use and the work of electrification has already begun. The railway line Salzburg-Schwarzbach-St. Veit and Schwarzbach-St. Veit-Spittal at the Millstättersee, too, is to be supplied with electric power from the power stations of Stubach and Mallnitz and the construction of both stations has already been started.

The building of electric engines has begun, passenger train engines, engines for lighter express trains and freight trains (two put together can draw even the heavy trains) and freight train engines for heavy freight trains on the steep line of the Arlberg.

The financial issue is a very difficult part of the electrification problem. A law provides for long term investment loans, especially with the help of foreign capital. But, up until now, these could not be realized and, therefore, the expenses had to be met by government means. However, the State Railways Administration hopes that the credit action of the League of Nations may change the present situation and provide Austria with the means necessary for electrification.

INLAND NAVIGATION

Of the Austrian waterways, the Danube and some of its tributaries and the lakes of the Alps are used for navigation. But only the navigation on the Danube is of real importance. The first Austrian navigation project was the Erste Donau-Dampfschiffahrts-Gesellschaft. It possessed at the end of 1920, 146 steamships with 69,690 H.P. and 887 trackers, and, later on, floating docks, hoists, etc. In these figures are comprised the ships on which embargoes were laid or which were sunk, during the War, so that it will only be possible to state the real number of ships after the execution of the Peace Treaty. In the year 1920 the steamships could register 77,965 hours of passage and 772,877 kilometers, the trackers, 1,033 kilometers. In 1913, the last year before the War, these posts amounted to 272,556 hours and 2,709,310 kilometers and 4,679,444 kilometers of trackers. The passenger movement amounted in the year 1913 to 741,594 persons. The Erste Donau-Dampfschiffahrt-Gesellschaft possesses

shipyards in Korneuburg and Obuda (Hungary), coal mines in Pécs (Hungary), a railway line from Mohacs to Pécs, and further shipping places along the Danube; the modern shipping place of Vienna is particularly remarkable.

SEA NAVIGATION

According to Article 225 of the Treaty of St. Germain, Austria, having no seacoast at all, yet has the right to hold a merchant fleet at sea. A law dated March 17, 1921 makes the necessary legal provisions for its flagging right.

POST

All legislation concerning the post and its administration falls within the sphere of the government. The administration is led by state officials and the highest post board is a department of the ministry for traffic and transport, whose chief is general manager of the post.

To the post administrations of Vienna, Graz, Klagenfurt, Linz and Innsbruck, belong 2,100 post offices and 2,120 branch post offices. Eleven hundred post offices send rural postmen out to carry letters, parcels, etc. into the country. There are further travelling posts and numerous postmen.

All post offices are central receiving offices for the post office savings bank. Of these, 1,725 post offices attend also to the telegraph and 1,350 to the telephone. The number of the officials amounted on December 31, 1920 to 9,691, of whom 219 were versed in jurisprudence and 22,876 subaltern officials, workmen, etc.

TELEGRAPH AND TELEPHONE

The Austrian telegraph and telephone is administrated by the government, *i.e.*, one department of the ministry of traffic and transport.

Directly under its administration are the chief telegraph offices in Vienna, Graz, Innsbruck, Linz and Klagenfurt. After the union of the Burgenland (Western Hungary) with the Republic of Austria according to the Peace Treaty of St. Germain, a further chief telegraph office in Ödenburg will be added.

Next follow the independent telegraph and telephone offices. In Vienna there exists a central telegraph station with 36 simple Hughes apparatus, 40 Hughes duplex apparatus, 4 double-fold Baudot apparatus, 3 twofold Baudot apparatus, 7 Siemens telegraph apparatus (Duplex), etc.

Besides, there are in Vienna and the provinces seventy-six independent telegraph offices. The whole net of wire includes cables of the length of 48,000 kilometers, covering distances of 18,000 kilometers. The telephone communication is administrated by thirty-three independent telephone offices including 79,467 main partners and 40,054 secondary partners.

Altogether, 11,500 persons belong to

the telegraph and telephone administration, of whom 500 are in the administering and in the building service.

AERIAL NAVIGATION

The state of aerial navigation in Austria has been determined by the Treaty of St. Germain. According to the terms of this treaty, all army aeronautic material, airships, motors, hangars, balloons and so on, had to be delivered to the Allied and Associated Powers and those not ordered for foreign transport, destroyed.

Since Austria had no private airships, her aeronautic activity is at present at a standstill. Its renewal will be possible only after the removal of the prohibition to build, to import or to export airships and their parts. The Paris Conference of the Allied Powers is willing to give to the Austrian government hangars and other aeronautic equipment for the supply of four aviation fields, Aspern, near Vienna, Thalerhof, near Graz, Klagenfurt and Innsbruck.

CHAPTER IX

The Manufactures of the Republic of Austria

By DR. SIEGMUND SCHILDER

Secretary of the Commercial Museum of Vienna and Privatdocent at the University of Vienna

IN those provinces which in November, 1918, united to form the state of German Austria, the later Republic of Austria, there existed all sorts of manufactures in pre-war times, which continued even through the war. Simple handicrafts and repairing work were to be found in both town and country, beside gigantic industrial concerns, such as the Österreichische Alpine Montangesellschaft with its mines,

iron forges and iron industries in Northern Styria and Carinthia; the Aktiengesellschaft Krupp at Berndorf for the manufacture of manifold objects of base metals; the Steyrer Waffen und Kraftwagenfabrik, arms and motor-car industry; the Puchschen Fahrradwerke, motorcycle works in Graz; the Lokomotivfabrik in Wiener Neustadt; the two railway carriage factories in Vienna and Graz; the

Vöslauer Kammgarnspinnerei, long wool spinning mills, and the large breweries at Schwechat, near Vienna, and at Puntigam, near Graz.

During war-timesome of these industries such as the metal and chemical factories, leather and shoe industries, were particularly flourishing inasmuch as they had to supply military requirements and were not totally cut off from the supply of raw materials. During the War, also, several state enterprises were added to private manufactures. These state enterprises were partly new projects and partly enlargements, like the Arsenal in Vienna, the ammunition works in Wöllersdorf and Blumau, etc.

Between the two extremes, *i.e.*, between handicrafts and the great manufactures, were large numbers of various factories of medium size. The War put an end to many of these smaller concerns either through their managers' being called to arms, or through want of raw materials; on the other hand, if their directors happened to be exempt from military service, or if the concern itself could be managed by women and did not lack raw materials, many of these medium sized manufacturers flourished as never before.

EFFECTS OF THE TREATY OF ST. GERMAIN

During the War established conditions underwent a great change which manifested itself in the adaptation of factories to the production of war requirements, in the lack of raw materials, in government prohibition on the manufacture of luxuries, etc. Then, after the War, the distribution of old Austria among the Succession States by the terms of the Treaty of St. Germain, in many cases had a detrimental effect on the industries remaining in the Republic of Austria. For example, sufficient spinning mills and

finishing works but by far too few looms are at disposal of the textile manufactures. The tanneries lack the supply of skins and tanning materials from the agricultural and forest districts of former Austria-Hungary. The important iron mines and smelting works in the Austrian Alpine provinces miss the necessary coal supply from the mining districts, which now belong to Czecho-Slovakia.

Still another effect of the treaty made itself disagreeably felt: namely, the fact that many of the great manufactures had always had their seats in Vienna but their factories, mines, etc., in those parts of former Austria-Hungary at present belonging to Czecho-Slovakia, Poland, Rumania, Jugo-Slavia or Italy. In these outlying districts, as it happened, circumstances in pre-war times afforded better prospects for industrial work: an abundance of raw materials, semi-manufactured goods and fuel; favorable lines of communication for export trade; moderate wages; low land prices and rents; occasionally, also, a lower taxation. Very often, indeed, only the commercial managements had their seat in Vienna.

MANUFACTURE OF LUXURIES IN VIENNA

The disadvantages of the breaking-up of the former great Austro-Hungarian economic and customs unit were less felt by the manufactures of luxuries and objects of art in Vienna. Here at the Capital, such manufactures derived certain advantages from the general conditions in the great metropolis which were to be found scarcely elsewhere within Austria-Hungary; *i.e.*, an innate and refined taste, a special skill in arts and crafts, surroundings encouraging such faculties and talents and comparatively wealthy and pleasure-seeking customers. Vienna, in consequence, has been able to develop

art objects to compare with the well known articles of Paris. In Vienna such products go by the name of fancy goods (*Galanteriewaren*) and comprise a great number of objects for daily use and ornaments made of the most varied materials.

Beside fancy goods made of leather, trunk articles, and saddler's wares, these are knick-knacks, smoker's requisites, stationery, articles for office use, cutlery, decorative buttons, lamps and candlesticks, high class toys, turned and carved objects made of ivory, mother of pearl, tortoise shell, horn, *gabalith* celluloid, soap-stone, marble, fine wood and base metals (especially bronze and other alloys of tin, zinc, nickle and copper) including wrought iron. The objects of art made of silver, gold and platinum rank with the jewelry and church vessels for the fabrication of which Vienna has long been renowned. Another group of art objects is formed by art fabrics and clothes, elegant gowns and underwear for ladies and children, carpets, fancy shoes, furs, feathers for trimming and artificial flowers, felt hats and art needle-work on cambric.

We must further enumerate among the manufacture of luxuries at Vienna, musical instruments (especially pianos), billiard tables, fancy stationery, more particularly notepaper, envelopes, albums, visiting cards, view-cards, pictures and engravings, maps, wicker articles, high class furniture, and the products of the film manufactures, which have gained much importance because of the possibilities for exportation after the War. For the rest, manufactures of luxuries are also to be found outside of Vienna in other cities of the Republic of Austria, as for instance, stained glass at Innsbruck, potteries in Upper-Austria (Salzkammergut), wood carvings in a number of the Alpine districts, etc.

Another consequence of the new demarcation of Austria was frequently observed in certain branches of industrial life which in the times of the old dual monarchy worked chiefly for home markets in a rather lax manner encouraged by protectionism. These manufactures were suddenly turned into export industries, within the narrowed customs and economic boundaries of the Austrian Republic. It is true that for some of these industries adaptation to new conditions was facilitated by the fact that the rate of exchange of the Austrian krone in foreign countries dropped faster than the wages and other working costs of the industries went up in Austria.

FOREIGN AID TO MANUFACTURES

In many instances not a few foreign firms were induced to avail themselves of the Austrian industries for the finishing up of various raw materials and semi-manufactured goods. For instance, German publishers made use of Austrian printing offices; Swiss packers, of the slaughter houses in the Austrian province of Vorarlberg. In the chapter on "Customs Policy," is given a more detailed description of this finishing up trade and of the means employed by the government to encourage it with the help of the customs and credit policy.

Besides, Austrian manufactures were allowed to profit by the short reconstruction boom, which set in immediately after the Armistice and ended in the spring of 1920 to make room for an international economic crisis.

Austrian industry was the more in need of such aid as it had to labor under a number of very unfavorable conditions. In the first instance, we must mention the lack of raw material, semi-manufactured goods and fuel. This, again, would seem a consequence of other grievances, especially the

limiting of the Republic of Austria to a territory but moderately rich in natural resources and the political isolation of Austria, caused by the policy of the other Succession States, particularly of Czecho-Slovakia. It should not be overlooked, either, that the rapid depreciation of the currency increased the purchasing power of foreign countries in Austrian markets and the consequent possibilities of selling Austrian products, while the purchasing power of Austrian manufacturers for foreign raw materials and semi-manufactured goods was sensibly diminished.

THE COAL SHORTAGE

The shortage of coal was particularly felt by those manufactures that use coal as an integral part of their products, *i.e.*, productions of calcium carbide, or employ it in comparatively large quantities as in iron mills, in brick and cement yards (where coal shortage meant stoppage in the building trade), in other branches of metallurgy, in the calcination of magnesite, etc. For almost a year past, mutual compensation treaties with foreign countries have brought some relief, for example, the exchange of Austrian cement in Jugo-Slavia for the requirements of iron works ever since the penetration of the German Stinnes concern into the Alpine Montangesellschaft. For business reasons the hauling of iron ore in the Austrian Alpine provinces was limited to the two most easily excavated *Erzberge* (one between Eisenerz and Vordernberg in Northern Styria, the other at Hüttenberg in Carinthia) by the Alpine Montangesellschaft, the most prominent of the Austrian iron foundries, although in other parts of the Austrian Republic important beds of coal are to be found. Beside the Alpine Montangesellschaft, must be mentioned the smaller iron foundries that have gained renown

throughout the world for their first quality steel.

The output of iron ore amounted to two million tons in the last years before the War but has since declined because of the generally unfavorable conditions of the Austrian Republic. The same is true in a comparatively smaller degree of the production of pig iron, which sank from 607,000 tons in 1913 to 110,000 tons in 1920, and, in 1919, even to 55,000 tons. In this extremity, numerous hardware factories were forced to import semi-manufactured goods from Czecho-Slovakia and especially from Germany. This was the case with the very capable machine works making industrial and agricultural machines, the works engaged in the production of rolling stock, railway and building materials, the motor-car and bicycle factories, the ship-building yards on the Danube, the manufactures of cutlery, scythes, sickles, etc.

The Austrian industries were forced to adapt themselves to all these unfavorable conditions. Apart from the fancy goods industries, the scarcity and high price of raw materials, semi-manufactured goods and fuel limited the manufactures to the production of articles in which the value of raw material and semi-manufactured goods falls short of the value of the labor involved. So instead of leather, leather shoes were exported; instead of any fabrics, clothing and underwear; instead of semi-manufactured paper, paper itself or rather paper-goods, stationery, prints, etc.

DOMESTIC ENCOURAGEMENT

But Austria found a way out of those difficulties not only by making use of capital and labor in production of high class workmanship, but by giving preference to those branches of industries for which the raw materials

were, for the greater part, to be procured at home and to which the problem of fuel presented no great difficulties. Here it is well to mention the greatest natural resource (some deposits of useful minerals excepted) of which the Austrian Republic can boast—namely, her forests. These cover 2.95 million hectare (about 7 million acres) and yield about 4.6 million cubic metres of wood, over 95 per cent soft wood. The manufacture of wooden articles in Austria comprises all sorts of wares from the simplest sawed and rough hewed goods to the finest wooden fancy articles and carvings. There are, in addition, planed woods, veneer and timber, common and select furniture, kitchen furniture, wooden parts of tools and machinery, toys made of wood, etc. Wood is further of great importance to the Austrian Republic as the raw material for the production of paper and paper goods. All this forms an integral part of the industrial activity within the narrowed boundaries of the Republic of Austria.

MINERALS OF AUSTRIA

Ranging far behind wood with its manifold uses and the iron industries must be named the three principal mineral raw materials of the Republic of Austria, magnesite, graphite and talcum. Magnesite is principally used as a raw material in iron foundries. In consequence of various difficulties, the almost inexhaustible deposits in the Austrian Alpine provinces (especially in Veitsch and further at Kraubath, both deposits in Northern Styria) yielded an output of only 9,971 tons raw magnesite and 52,560 tons calcinated magnesite for export in 1920. At present Germany is the principal buyer of magnesite, a capacity in which the United States had appeared before the war.

Graphite is found in Styria (particularly near Mautern-St. Michael) of a hard non-sulphurous kind which is principally used to make crucibles for casting steel. Besides, there are smaller deposits of graphite in the North West of Lower Austria (up to Spitz on the Danube) as continuations of the South Bohemian graphite deposits. The production of the last year of peace, 1913, within the territory of the present Republic of Austria amounted to 17,282 tons and far exceeded the home requirements, which, it is true, are dependent on foreign countries for some special grades. In 1920, the production of the Austrian Republic amounted to only 11,500 tons.

Talcum is to be found in several places in the Alpine provinces but in especially large quantities and very good quality at Mautern (Northern Styria). Immediately before the War its output amounted to not quite 15,000 tons yearly. It is not only used for home demand in Austrian industries, but is also to a great extent refined for export according to the various manners of its employment in powders, paints, tooth-paste, as filling material in the paper industry, finishing material in the textile industry, as non-lubricating and polishing material free from fat in numerous industries such as potteries and the glass industry, etc.

Not only are the sources of old, well-known raw material energetically exploited in Austria but attempts are made to discover new ones or to utilize others, neglected or less known up to the present. Apart from endeavors, dating back to war-time, thoroughly to investigate the nature and usefulness of the abundant and manifold plants of economic value found in the Austrian Alpine districts, interest has chiefly centered in the mineral resources. It has for instance been

possible since the autumn of 1920 to become independent of the supply of North Bohemian caoline by the discovery of quite a good quality of this material in Upper Austria and so to lay a foundation for china manufacture in the Austrian Republic.

The fabrication of aluminum conducted with the help of the Alpine water powers has suffered very severely from the lack of the raw material, *bauxit*, ever since the collapse of the Monarchy in the autumn of 1918. Diligent mineralogical and geological research succeeded in discovering this mineral in Upper Austria and Salzburg and in stimulating a new development of the aluminum industry.

The gold mining which was carried on in the Alpine provinces, especially in Salzburg, to a comparatively large extent in the fifteenth and sixteenth centuries fell into disuse later on, owing partly to the unfavorable natural causes, descent of glaciers, and partly to the expulsion of the Protestant miners. But in the course of the last year gold mining has again been taken up with greater zeal as a good capital investment and met with some success, especially in the territories of Gastein and Rauris.

The coal output which still remains short of the demand has been raised on the one hand by the exploitation of coal mines neglected till now, and on the other hand by more intense exploitation of the deposits already worked which already show an increase of from not quite two million tons in 1919 to about two and one-half million tons in 1920. It is true

that for the greatest part brown coal is hauled. The oil slate (*Ölschiefer*) deposits in Northern-Tirol which had already been exploited on a moderate scale for some time have been worked more intensively ever since the summer of 1920. They are to furnish the raw material for some chemical works.

NATIONALIZATION

During the first two years of the Republic of Austria while the Social Democratic party played an important, and sometimes even a leading part in the government, eager attempts were made to create industries on the basis of nationalization (*Gemeinwirtschaft*) or as half private enterprises. Some municipalities of larger towns that are in the hands of the Social Democratic party, Vienna, Wiener Neustadt, Graz, etc., have pursued this line of action since the autumn of 1920 and the same may be said of the organizations of consumers in town and countryside, coöperative societies and agricultural purchasing societies. They are tackling the problems of the exploitation of the water powers, electric plants, coal mines, mills, bakeries, the production of medicines, the procuring of agricultural implements and machinery, seeds and sundry other agricultural requirements, the shoe industries, the manufacture of saddles, leather goods and the weaving and making up of textiles, etc.

But none of these attempts have so far been so greatly successful as materially to discredit the old established system of free capitalistic initiative.

CHAPTER X

Austria's Trade

By HOF-RAT PROFESSOR ANTON SCHMID

Director of the High School of Commerce in Vienna

TRADE is of decisive importance for Austria and especially for Vienna. Agriculture and mining are unable to meet the demand made upon them by the population. The manufactures lack raw materials and other means of fabrication. Despite the greatest exertions made by the government and all classes of the population, only a comparatively small part of the demand for raw materials and manufactured goods could be furnished by home production. Through trade alone would it seem possible, therefore, to obtain the necessary raw materials. If amply provided with raw materials Austria could also manufacture high class specialties in fancy goods on a large scale. In order to dispose of this surplus of production highly developed trade would again be needed.

To a certain degree the very existence of Austria and Vienna can be assured only by an enormous development of trade and commerce. The foundations for such a development are already laid, since Austria by geographical position appears eminently suited to form a connecting link for the trade between the North and the South, the West and the East of Europe. Then, too, Vienna, beside all kinds of institutions needed for carrying on trade and traffic boasts, in the first instance, banks and other similar organizations, insurance companies, communications, forwarding agents, storehouses, etc. Just after the break-down of the Austro-Hungarian Monarchy the natural and historical importance of Vienna as an international, financial and commercial

center in Central Europe re-asserted itself and has grown ever since.

When the unhappy War was over, the home trade found itself chiefly occupied with foodstuffs and the necessities of life. Very often speculators caught hold of these valuable articles and raised their price inordinately, despite the most severe preventive measures. This questionable trade, carried on as it is chiefly by foreigners, injures the reliable, old-established indigenous merchants as well as the population, the economic life and the currency; but it will doubtless cease immediately when necessities of life can be thrown into the markets in sufficient quantities.

The weekly markets in the larger towns, the cattle markets and the trade carried on by hucksters are important for home trade. Owing to the difficulties of communication, markets and fairs have gained in importance. In Vienna regular public sales by auction of objects of art, articles manufactured by the arts and crafts, and antiques are held. At the public pawn broker's office and repository (*Versatz und Verwahramt Dorotheum*) new and second-hand goods are sold by auction almost daily.

Most of the commerce between the Succession States and Austria-Hungary is actually or financially carried on through the intermediary of Vienna. If the Allied Powers really mean to keep up the independence of Austria and Vienna, they can achieve this only by granting correspondingly *high credits*, in order to pay up Austrian

currency, and by promoting Austria's manufactures and trade to the utmost. Unfortunately, Austrian trade is much hampered by various measures adopted by neighboring countries, whereas, perhaps, if these countries were to study their own interests, they would guard the independence of Austria.

Three great valleys following the main direction of the mountain range and four side valleys in the Alps, all of which are traversed by railway lines, form the natural network of traffic for the trade of Austria. From west to east the Danube forms the important line of commercial communication, but it is far from having been properly utilized because Austria could not command the necessary funds for enlarging the ports of Vienna, Korneuburg and Linz on the Danube and stimulating the traffic.

Next to Vienna the most important commercial centers are Graz, Innsbruck, Linz, Salzburg, Klagenfurt, Bregenz, Villach, Wiener-Neustadt, St. Pölten, Baden, Steyr, Wels, Krems.

The most important articles of Austrian trade are at present as follows: wood and wooden articles, iron, and iron mongery, paper and paper goods, (stationery), machinery, apparatus, textile fabrics, clothes, grain, leguminous plants, flour, vegetables, fats, fuel, chemical products, mechanical instruments, watches, leather and fancy goods and the so-called "Viennese articles"—ready-made clothes, furniture, cars and carriages, leather goods, articles for smokers, works of art, articles produced by the arts and crafts and cigarette paper.

The imports arranged according to quantity comprise: coal, coke, grain, vegetables and vegetable products, sugar, all kinds of foodstuffs, iron and iron mongery, stone-, china- and glassware, pottery, minerals, mineral oils, raw materials for textiles, chemi-

cals, machinery and apparatus, salt, raw materials and other materials used in manufacture.

The principal articles for export arranged according to quantity are: wood and wooden articles, minerals, especially magnesite, graphite, lime, stones, ores, talcum, iron, and iron mongery, offal, paper and stationery, vegetables and fruit, machinery, apparatus, wearing apparel, cars, chemicals, books, works of art, glass- and chinaware.

Three-quarters of the total imports consist of coal and coke, grain, leguminous plants, rice and flour. Sugar and other foodstuffs rank next. It is most satisfactory to state the increased import of industrial raw materials particularly cotton, wool, hemp, jute, hides, skins, tanning materials, India rubber, leather, iron, raw metal, together with a decrease in the importation of their manufactured articles. The rising importation of manure salts and other manure is also a matter of satisfaction. The increased export is in the first place to be attributed to the greater exportation of wood, metal, ores, magnesite, and further to that of cotton fabrics, woolen materials, hats and umbrellas, ready-made clothes, stationery, India rubber goods, shoes, furniture and other wooden articles, cement, hardware, colors, soaps, and chemicals (especially vitriol of copper).

More than half of the imports come from Germany, one-fourth from Czecho-Slovakia, whereas one-fourth of the exported goods go to Italy, one-fourth to Czecho-Slovakia, and smaller fractions to Germany, Hungary, Switzerland, Jugo-Slavia and Poland. Unfortunately, the large Viennese trade with the western countries, with Russia and countries overseas, which had been flourishing before the War, could not be resumed to such an extent as to ensure even the most precarious existence for Austria and Vienna.

The transit trade is very considerable in all sorts of fuel, cotton yarn and cotton fabrics, apparatus, salt, foodstuffs, sugar, minerals, iron and hardwares, chemicals, beverages, wool and woolen goods, ready-made clothing, stationery, glass-, china- and earthenware, cars, mechanical instruments, watches, matches, candles, soaps and offal.

Whereas in 1919 the import came up to scarcely 40 millions kronen and the export scarcely to 10 millions kronen, the import rose to 14.5 millions kronen during the first quarter of 1921 against 11.4 millions during the corresponding period of 1920. The export rose from 1.9 millions kronen in the first quarter of 1920 to 3.8 millions in the first quarter of 1921. The import showed an increase of 28, the export, of 100 per cent. But unfortunately the export continues to form only one-fourth of the import, whereas for the sake of her mere existence Austria ought to export much more than she imports.

Only the exceedingly large finishing up trade, for which America, England, France, Italy, Belgium and the Succession States of Austria-Hungary should allow her credits and raw materials to facilitate the selling of the finished articles in their own commercial centers, may help to save Austria from utter ruin in which Europe and the

overseas countries would be involved to a much higher degree than it can be imagined at present.

Vienna's innate vitality has so far stood the severest tests very well indeed, despite all pessimistic prophecies, and the Capital has developed into a center of trade and commerce for Central and Eastern Europe. The most strenuous efforts are being made at present in this heavily afflicted city to arrange a fair on the largest scale.

But a lasting guarantee for the existence of Vienna can be found only in its development into a center of transit, with a transit port on the Danube, as many transit storehouses as possible and other institutions for transit trade. During the Great War, Vienna received the fugitives of foreign nationality from the North, the East and the South with great hospitality. It has preserved peace and order in spite of the severest sufferings and the greatest shortage of food. These facts, alone, would make it particularly adapted as a centre for international trade and commerce and as the meeting place for international commissions. Foreign capitalists wishing to invest their money would find in Vienna many opportunities, that bid fair to pay rich interests and gradually develop into an excellent and lasting business.

CHAPTER XI

The Customs Policy of the Republic of Austria

By DR. SIEGMUND SCHILDER

Secretary of the Commercial Museum, Vienna, and Privatdocent of the University of Vienna

THE trade and customs policy of the Republic of Austria is founded mainly on the following principles:

1. The customs tariff of former Austria-Hungary, dated February 13,

1906. This tariff has undergone numerous modifications, *i.e.*, reductions or partial alterations through the commerce treaties of Austria-Hungary concluded in the meantime. The

customs duties fixed by those treaties are still in force, though quite a number of the countries concerned have themselves put an end to the treaties either by considering them a consequence of the war or by revoking them. These tariffs have been maintained by decrees of the former government, dated October 6, 1914, and February 14, 1918, in the interests of the consumers. In respect to those foodstuffs that are of particular importance as exports from Italy, such as dried fruits, olive-oil, etc., article 223 of the Treaty of St. Germain provides for the maintenance of the tariff until December 16, 1922.

2. Numerous reductions of and exemptions from duties dating from the time of the great war. These were intended to facilitate the supply of certain commodities which had become scarce by reason of the war, *i.e.*, foodstuffs, raw materials, semi-manufactured foods, cattle for farming and slaughtering, fish, meat, cereals, rice, legumes, flour, malt, fruit, vegetables, Italian pastes, food yeast, sugar, molasses, butter, artificial butter and margarine, cheese, various animal fats, condensed milk, raps, lead, alloys of lead and starch.

3. Maintenance by the Republic of Austria not only of these duty-exemptions and reductions of war time, but, the economic situation getting worse, further exemptions and reductions of import duties. The exemptions in force in the summer of 1921 included the duties on the following: chicory (for making coffee-surrogates), certain coal tar oils, art prints and chromo-pasteboard, paper for art prints and chromo paper, raw-tanned goat and sheep skins, cement, sheet iron, iron plates and hammered iron, certain kinds of iron rolled into wire, rails and materials for fixing rails, certain goods of not malleable iron and certain goods of malleable iron. The sole export-

duty *i.e.*, that on raps, was considerably reduced.

4. The depreciation of Austrian currency which caused the payment in gold of the customs duties as fixed by a decree of February 13, 1906, to become, even during the war, a problem rather difficult to solve. (In October, 1918 the quotation of the Austrian krone was 40 Swiss centimes, against 105 in June, 1914.) Already during the last period of the monarchical system, the government had tried to make up for the currency depreciation in decreeing on September 18, 1918, an augmentation of the customs rates by 150 per cent in case the latter were paid in paper kronen. As the Austrian exchange was continually declining till it had reached the level of not more than one centime, and the distress of the state finances was going from bad to worse, the Republic of Austria was forced considerably to raise these additional duties from time to time. According to the last decree, dated April 24, 1921, the customs rates have to be multiplied by 100 when paid in paper money. For some groceries, as dried fruit, alcoholic drinks, dainties, textiles, millinery, clothing, precious metals and jewelry, gold watches, perfumery, cosmetics, the coefficient of augmentation is 130. The government terms these goods "luxuries" the import of which by the impoverished Austrian Republic should be prohibited or should at least support high duties.

5. The fact that in the former Austro-Hungarian Monarchy the temporary duty-free import for reexportation after refining the raw materials was subject to the proof of export of manufactured goods and much limited. It was further bound to the proof of identity. But few exemptions based on the privilege of the "equivalent principle" were granted. This reexportation was treated with much more liberality by

the Republican government of Austria.

A similar spirit of liberality is displayed in the new customs administration law of June 6, 1920. This law contains the most extensive concessions to meet the requirements of the export manufactures regarding the regulation of the refining trade. Among other things, it subjects the decisions of the customs authorities, to a considerable extent, to the administrative jurisdiction, similar to an old established practice in Anglo-Saxon countries. Reexportation of late has also helped the export industries to overcome the difficulties caused by the import and export prohibitions of post-war time. The facilities offered to exportation by the finishing up trade mentioned, serve also the purposes of a new kind of reexportation trade, which plays a prominent rôle in Austria as well as in other countries, which have enjoyed but small credit abroad since the year 1919. This re-export trade concerns the duty-free raw materials and semi-manufactured goods, and is understood to procure credits to the export industries for the purchase of raw materials in foreign countries with an appreciated currency. In return, the creditors have a specially guaranteed hold on the raw materials during the process of manufacture, on the goods made out of them and on the foreign values that are received for them.

6. A preference of the Republic of Austria from its very beginning to pursue a policy of free trade. Its capital, Vienna, being far too large for so small a country, it was quite natural that the Republic should in the first place try to meet the needs of the transit and finishing up trade. But in view of the not over-friendly attitude of some of her neighbors and the Succession States, especially the Czecho-Slovakian Republic and to some extent also Jugo-Slavia, the

Austrian Government had to content itself with issuing provisional compensations or, at most, "contingent" treaties during the first year or two after the Armistice. Moreover when these treaties, as far as they were favorable for Austria, were not observed by her neighbors (especially Czecho-Slovakia), impoverished Austria lacking the most important foodstuffs and raw materials and totally disarmed was economically and politically too weak to oppose herself to their breach. This situation became still more aggravated when on June 16, 1920, the Treaty of St. Germain came into force. This treaty obliged the Republic of Austria to accord the clause of the most favored nation to all Allied Powers (including the Succession States, Czecho-Slovakia, Jugo-Slavia, Poland, Hungary and Roumania) in respect to commerce, customs policy and personal rights. No reciprocity being stipulated, Austria has no means to fight a tariff war, even if ever so much wronged by any one of the Allied Powers.

The situation of the Austrian Republic was to some extent improved when the growing international commercial crisis in the world's market, which began in the second half of the year 1920, strengthened the position of the buyer in respect to the seller. The commerce treaties which she concluded with her principal neighbors and with the Succession States are again more like the pre-war treaties. The trade with remote countries, especially the oversea trade which had been interrupted by the War, has gradually revived.

PLANS FOR ENLARGING CUSTOMS BOUNDARIES

Ever since the proclamation of the Republic, plans have been under consideration tending to amalgamate the

territories now forming the Republic of Austria with some larger economic unit, with one custom boundary in common. One of these plans, which has, however, found but few adherents, their number constantly decreasing, aims at the re-union into one homogeneous economic whole of those parts that formerly constituted the Austria-Hungarian Monarchy or, failing this, of at least its central provinces, comprising the republics of Austria, Czecho-Slovakia and Hungary.

Aside from some smaller obstacles, this plan failed for the following reasons: the desire of Czecho-Slovakia to make Prague the political and economic capital of Central Europe; the deterioration which the Treaty of St. Germain has produced in the commercial and financial position of Austria, which would involve Czecho-Slovakia, also, in case of a tariff union; the divergence of the rates of exchange of the three countries, which would be a heavy burden to Czecho-Slovakia and a benefit to Austria and Hungary; the differences between Austria and Hungary on the question of the "Burgenland" (Western Hungary) and the contrast of the royalist-aristocratic trend of Hungary and the re-

publican-democratic trend of Austria.

Therefore, from the very beginning, the vast majority of the population has most energetically embraced the other plan. After this plan, Austria being in its present shape almost entirely inhabited by a population speaking and feeling German, would be united, at least economically, with Germany. Beside the argument of nationality there is an economic consideration, too, which speaks in favor of the union with Germany. Heavy as may be the burden imposed upon Germany by the Treaty of Versailles, the situation of this country may be termed brilliant when compared with that of the Austrian Republic. Further, Germany has always shown a very friendly attitude in respect to all questions of commerce and tariff policy ever since the autumn of 1918, and German capitalists have invested large sums in Austrian enterprises, especially in the iron industry in the North of Styria.

It is highly desirable that a feasible plan shall soon be adopted, for the economic situation of the country, lacking the most necessary natural resources and burdened with too large a capital city, still continues very unsettled.

CHAPTER XII

Social Policy in the Republic of Austria

By DR. ANTON HOFFMANN-OSTENHOF

Vienna

IN the following pages we propose to try to give a clear picture of the present state of social legislation in Austria as it has developed from the very beginning of the new Republic. Immediately after the War, in November, 1918, Austria was threatened by grave dangers. A multitude of sol-

diers returning from the front and unaccustomed to regular work flooded the country, while the war manufactures had to shut down. Thus there collected a whole army of unemployed, and serious outrages were to be dreaded in view of the excited state of mind of the population. It was therefore one

of the first duties of the newly founded Republic to find a remedy and to enable the unemployed to earn their living. Indeed, a few days later an unemployed payment was created with great financial sacrifices on the part of the government, by which the more serious economic and social disturbances could be avoided. The unemployed payment was at first nothing but a provisional measure to meet emergency; to carry it out, it was necessary to create a complicated new machinery and to institute special agencies for the unemployed. It devolved upon these agencies, in the first place, to procure suitable work for the unemployed who applied to them; if this proved impossible, the unemployed payment was granted out of the public fund, if the applicant had previously been in a situation which made health insurance compulsory. The sum of the unemployed payment was proportional to the daily insurance money, with extra pay for the members of the family.

As the economic situation continued to remain unfavorable, the unemployed payment had to be maintained; but, profiting by experience, it was reduced to a legal basis and transformed from a provisional emergency measure into a lasting institution organized in the form of an insurance against unemployment. Since the new law of 1920, the costs of the unemployed payment are no longer borne exclusively by the government but, according to the principles of insurance, the employers and employes are also compelled to contribute to the payment. While at first allowance was made for a critical situation and an indulgent treatment of the applicants for assistance proved necessary, at present the conditions of unemployed payment are based by law on severer rules and its duration is limited to a certain date within a year. The unemployed payment has also

been extended to all industrial laborers and employes. The amount of the grant is at present fixed in accordance with the daily money paid by the health insurance in case of sickness; the extra pay for the family has been abolished. Decision as to claims to the grant is regulated by law, and abuse of the unemployed payment is provided against by extensive measures of control.

The overstraining of the human working power as practised during the War necessitated a series of legislative measures all of which tend to spare and preserve the physical strength of the population and to protect certain classes of persons particularly in need of protection, against over-exertion.

THE EIGHT HOUR DAY

The most important measure to this end is the fixing of the eight hour day. Like the unemployed payment, this measure, long demanded by the laborers, was introduced in the winter of 1918-19 only by way of trial, and limited to the workmen in factories, where it encountered comparatively small difficulties. There, although it was impossible to form any definite opinion owing to the prostration of industrial life, a year after the law had been enacted it was observed that the factories had so far adapted themselves to the eight hour day that its definite institution could be contemplated, the more so as Austria's neighbors had followed the same course. The eight hour day was, accordingly, extended to all enterprises, not only concerning laborers but employes as well, by a law that came into force in the middle of 1920. Under this measure, the working of overtime may be allowed by the authorities to satisfy an increased demand for production. By mutual agreement (*Kollektivvertrag*) the eight hour day may be supplanted by the forty-eight hour week in order to pro-

cure the workers the advantage of a free Saturday afternoon. Exceptions of a general character for certain groups of enterprises may be fixed by the Ministry for Social Administration after having heard a council wherein employers and employed are represented in equal numbers. Such exceptions have been repeatedly granted, especially to meet the requirements of the small industries in the countryside.

The eight hour day was also introduced in the bakeries. The unsanitary conditions in this industry called for a special provision for the workmen. Already during the war when the baking of white rolls and bread were stopped, the customary but much opposed nightwork had been abolished to a certain extent. The bakery law of 1919 gave the prohibition of nightwork a legal form. With regard to the particular danger to health accompanying this work, the employment of baker's apprentices was made subject to medical certificate, establishing the physical qualification of the apprentice. The same precaution is taken in English legislation.

INDUSTRIAL PROTECTION

Among the persons most in need of protection we must count the women, juveniles and children. According to the laws now in force, women are not allowed to do regular industrial work during the first six weeks after their confinement. It is forbidden in all industries to employ female workers of any age, or male juveniles of between fourteen and eighteen years of age, in nightwork, between 8 p.m. and five a.m. The night's repose of these persons must amount to at least eleven successive hours. Exceptions beside those necessary to remedy a disturbance in the works or to avoid the loss of material, can be fixed by the Ministry for Social Administration, after

having heard the trade unions of the workers concerned and the associations of the employers, if important economical considerations or the interests of the workers should require them.

Detailed regulations for the protection of children are made by the Children's Employment Law of 1918. This refers to the employment of children, boys and girls below fourteen years of age, in regular remunerative work, even when not separately paid. The employment of children before their twelfth year of age is prohibited altogether except for light work in agriculture or in the household, and even here permitted only after the tenth completed year of age. In certain precarious enterprises and in dangerous lines of work, every kind of child employment is forbidden. As far as it is possible under the law, children must not be impaired in health, bodily or mental development, must not be morally endangered, or prevented from attending school. Also the night's rest of children, their employment on school days and school holidays and their Sunday rest are regulated by this law.

In the mining industry, the employment of children and the nightwork of women and male juveniles are prohibited just the same as in all other industrial undertakings. Juveniles of both sexes under eighteen years may be employed in mines only in such manner as not to injure their bodily development. Women of any age may be employed in mines only during the daytime; women before their confinement only for light work, and not sooner than six weeks after their confinement. Sunday rest is kept in the mining industry in the same manner as in other industrial undertakings.

Already in peace-time the legislative protection of persons employed in homework in Austria had long been contem-

plated. This problem gained in importance during the war when numerous women were employed as homeworkers in the manufacture of underwear and uniforms for the army. The actual law on working and wages conditions for homework presents itself as a continuation of these endeavors. This regulation is confided to special commissions that, on the whole, have the same task as a board of wages. They fix minimum wages and may issue compulsory decrees regarding labor and delivery conditions. In addition, the law provides measures to prevent economically weak employes from being over-reached by their employers.

During the rush work of war-time it was not always possible to pay the necessary attention to protection of labor with regard to avoidance of accidents in factories. This could be secured only when quieter conditions returned. Connected with it is the reform of the meritorious institution of factory inspection which has existed in Austria since 1883. By a lately promulgated law its domain was much enlarged, so that it now controls not only the industrial undertakings but also the majority of other enterprises, such as banks, theatres, newspapers, homework, children's work, etc. That the inspectors of factories may fulfill their difficult duty, a higher official authority was bestowed on them, giving them the right to make a recommendation in criminal cases concerning the violation of the protection of labor, and the right to dispose independently in order to avoid threatening dangers when measures are necessary for the protection of the life, health and morality of the workers.

THE ARBEITERKAMMERN AND BETRIEBSRÄTE

Of the whole social legislature of the democratic Republic of Austria the

democratic principle of the worker's right of determination is most characteristic. This principle is especially realized in two modern institutions: the *Arbeiterkammern* (workmen's chambers), and the *Betriebsräte* (workmen's councils). In the *Arbeiterkammern* the workers and employes secure a representation of their economic interests organized by legislature. Heretofore, only employers had possessed such representation in the Chambers of Industry and Commerce. The *Arbeiterkammern* are organized in analogy to the Chambers of Commerce and Industry. Their members are elected by the workers and employes. Their task is, particularly, to give reports, memoranda, and proposals concerning the regulation and protection of labor, workers' insurance and aid for workers, to the authorities and legislative corporations for use in the making of labor statistics, welfare work, etc.

The institution of the *Betriebsräte*, or workmen's councils, is regulated by a law in force since the middle of 1919. With the experience acquired since that time it may be said that the fears of this new institution expressed by some quarters were unfounded. The *Betriebsräte*, which it is well to discriminate from the so-called *Arbeiterräte*, promise to become a useful intermediary between the employer and the employed. Fulfilment of this promise has been facilitated by the fact that their domain has been strictly circumscribed by law, and that in the event of the springing up of controversies, their decision has been referred to special boards, *Einigungsämter*, which are composed of equal parts of employers and employed, and are presided over by an impartial jurisdictional official. *Betriebsräte* must be elected in all factories and other enterprises with at least twenty workmen or employes. The number of the members of the *Betriebsräte* varies

according to the number of the persons belonging to the enterprise; the elections are to be made according to the principle of proportional elections. The Betriebsräte have to further the economic and social welfare of the employed. It is their task to execute the collective agreements, to control their execution, to introduce new ones after an understanding with the trade unions, to control the execution and observation of legislative prescriptions on workmen insurance, factory health, prevention of accidents, to inform the controlling authorities if necessary, to see that discipline is kept in the factory, etc. The Betriebsräte can be dismissed only if a legal reason exists, for such dismissal, and then, only with the consent of the Einigungsamt.

These Einigungsämter, beside attending to the tasks above mentioned, practise as *Friedensrichter*, (justices of peace), in the settlement of controversies springing out of conditions of labor, and can, if a friendly settlement is not established, pronounce an award which is legally executable, if the parties submit to it. Furthermore, they are registering boards for collective agreements. The system of collective agreements which is in use in nearly all branches of industry is registered at the Einigungsamt and published by it. The Einigungsamt can also extend the prescriptions of a collective agreement having gained preponderate importance to other labor contracts which are similar to those regulated by the collective agreement.

GENERAL SOCIAL MEASURES

Beside the workers and their employes the clerks have also succeeded in securing social improvements. In the period at the end of the war, they were protected against the loss of their positions by the prohibition of dismissal through employers. Later on, this

prohibition was limited and dismissal allowed under certain conditions, especially against the grant of a compensation. Finally, the whole legislation concerning clerical employes was regulated by a new law. This law perpetuates the prescription that the employe, who leaves his place through no fault of his own, after having held his position for some time, has the right to a compensation. Also the regulations concerning the consequences of unfounded dismissal, the terms of said dismissal, the receipt of salaries during sickness, confinement and leave of absence, give many advantages to the employes. A special law regulates paid leave for industrial workers who have a claim to from one to two weeks leave every year.

To the classes which get a modern social protection belong also the house-servants, including governesses, private tutors, etc. To these persons a limit of the daily working hours, pauses for rest, free going out, yearly leave, assistance in the case of illness have been secured by law. Also the sickness and accident insurance has been extended to the house-servants.

On the whole, it is planned to extend the sickness and accident insurance to persons who earn their living independently, *i.e.*, especially to the workers in agriculture and forestry who have been excluded until now. Of particular importance is the creation of an old age and invalidity insurance, very much in demand for some time by the working classes, which, too, it is planned shall presently be extended to all dependently working persons.

For the state officials who are particularly involved by the present situation and whose salaries cannot in consequence of the sad state of public finances keep pace with the huge increase of prices, a new kind of assist-

ance has been instituted by a special sickness insurance.

NATIONALIZATION LAWS

The much discussed problem of nationalization has also occupied the Austrian legislation. The laws relating to public welfare provide appropriation of economic enterprises for the benefit of public corporations (state, province, municipality), which shall be executed with full compensation of the proprietor according to a well regulated procedure. Provision is made, furthermore, for the creation of *Gemeinwirtschaftliche* institutions, a kind of syndicalism, founded by the state, province or municipality and intended either for transferring private or public enterprises to the property or administration of such *gemeinwirtschaftliche* institutions or for creating new enterprises in this form. The net return of these institutions is divided between the founding corporation and its workers and em-

ployes, the share of the employes being allowed to reach one-fourth of the return.

With the exception of some few and very moderate attempts to transfer public or state enterprises to *gemeinwirtschaftliche* institutions, a realization of these legislative regulations has not yet taken place. It is quite certain that it is impossible to realize this plan to a greater extent under the prevailing difficulties.

This short enumeration of the most important measures, may prove how active the Austrian legislature has been in the last years with regard to social policy, and may serve to show what social progress has been made. That all these manifold innovations, decisive in the development of the economic life could, on the whole, be introduced without any greater troubles, gives evidence of the sound judgment of all classes and persons concerned, and permits a hope of the best for the future.

CHAPTER XIII

Government Organization for Social Aid in Austria

By DR. ROBERT BARTSCH

Professor in the University of Vienna, Ministerialrat and Director of the Juvenile Aid Department of the Ministry for Social Administration in Vienna

IN the following article, we propose to speak entirely of juvenile aid, aid for disabled soldiers, their widows and orphans, and poor relief, since the other provisions of government organization for social help are to be dealt with in special chapters.

JUVENILE AID

For many centuries past it has devolved upon the Austrian courts of justice to appoint and control guardians for children who are deprived of

the legitimate guardianship of a father. The courts of justice also exercise a far-reaching right of control over the father's. They limit his power and proffer assistance even against the will of father or guardian. This jurisdictional care for juveniles has quite recently been given a wider compass by the law of 1919. This new law concerning juvenile courts decrees their jurisdiction exercised over persons under eighteen years of age to be joint with the jurisdiction of the

courts of wards, exercised over all juveniles in need of help, particularly over all waifs and strays or ill-treated children and those in moral danger from their surroundings; it gives them, also, the right to settle the abode of children sprung from various unions on the part of their parents.

The most serious defect of the old system was the inefficiency of guardians. These were chosen individually, and the acceptance of the appointment formed part of their duties as citizens. Women were excluded from this office up to 1914. The foundation of orphans' councils (*Waisenratsvereine*) intended to assist the courts of justice in the control of guardians, did not effect a change for the better. A new and promising departure has lately been made in an official guardianship (*Berufsvormundschaft*) which was recognized by the civil code in 1914.

OFFICIAL GUARDIANSHIP

This official guardianship, is exercised by the headmasters of boarding schools over the children under their charge, and, further, by societies and public juvenile boards (*Jugendämter*). The societies and juvenile boards are either appointed as guardians by the courts of justice in individual cases, or by virtue of a special jurisdictional authorization, become guardians of all illegitimate children within their domain from the moment of the birth of the child. What makes the official guardianship so valuable is the substitution of a specially trained and officially appointed body of guardians for the frequently incompetent, inexperienced and disloyal individual guardian. Endeavors are being made gradually to extend the official guardianship over all illegitimate children, during the first years of their lives, at least; and, in time, to institute it for

legitimate children where no sufficient guardianship on the part of relatives or friends has been provided for.

The official guardianship is the basis of the juvenile boards which have been introduced into Austria during the last ten years. At first such boards were established by the larger municipalities. Now, beside Vienna, all provincial capitals and some other larger municipalities boast them. The provinces have also set about establishing official guardianships in the countryside which form the basis of the entire organization for public juvenile aid in such districts. Some years ago the juvenile board of Lower Austria had attached official guardianships to all the eighty courts of justice in this province.

The official guardians not only exercise their special guardianship but they render every assistance to the parents and guardians in their districts. One of their principal duties is to see that relatives fulfill their duty in keeping the children, and that illegitimate fathers pay their alimonies regularly.

Infants' aid is closely connected with the official guardianship. It provides advice for mothers and issues propaganda urging mothers to nurse their own babies. This propaganda is effectively supported by the general health insurance and the nursing premiums granted by the sick funds. Thus it became possible in Lower Austria which boasts of nearly two hundred mother's advice councils (*Mutterberatungstellen*), to reduce the infant mortality from 27.81 per cent in 1915, to 13.2 per cent in 1920. The American Red Cross has recently started an efficient movement to extend the mother's advice councils and the medical control, to cover all infants.

In obedience to a law of 1919 all illegitimate, and all legitimate children not living with their parents, are placed

under public control from their birth to their fourteenth year. This control, which provides at the same time for the physical and moral welfare of the children, further makes it compulsory for all persons, other than parents and grandparents, who wish to take children under their charge to obtain a public license. For the education of neglected children and their detention in reformatories, an antiquated law of the year 1885 is still in force. A projected bill for a modern law of education through social aid was recently published by the government.

Added to the official aid of the juvenile boards, which are not spread over the entire country, is the voluntary relief work of societies and institutions. Some of these institutions, particularly foundling hospitals and orphanages, date back to very old times and were founded as charitable organizations. Nearly all the more ancient institutions bear a religious character.

Modern juvenile aid began about 1900, when there was observed the dangerous depravity of the youth of the larger towns. Such relief work received an extraordinary impetus during the War. Numerous societies and institutions, day nurseries, *crèche*, asylums for children, etc., were newly founded. Side by side with the nuns who were the only workers engaged in juvenile aid in former times, numerous secular helpers are now being trained in various private institutions.

The voluntary relief work suffered particularly from the effects of the War, manifested in the depreciation of the capital of charitable institutions and the terrifying decline in the revenue from voluntary contributions. This falling off in contributions is to be explained by the impoverishment of the former benefactors and the undeveloped sense of social duties among the

newly rich. Consequently, voluntary relief work is to a large extent carried on with aid from abroad. Prominent in such aid is the American Children's Relief Work, procuring a meal a day for several hundred thousand children, while the American Red Cross provides clothes, underwear and other materials from its large supply depots.

One branch of relief work, chiefly carried on with aid from abroad, began with a movement to afford children several weeks' stay in a foreign country for the sake of recreation. Its chief object now is to promote the foundation of health resorts in Austria in order to make good, with all possible speed, the harm done by the blockade, such as bad nourishment, tuberculosis and rickets.

The relief work for juveniles after they have finished their schooling is in the hands of voluntary helpers even at the present day. Some of its branches, however, are directed by public boards. We must mention here the organization for advising the young people in choosing a profession (*Berufsberatung*) which has branches in a great number of public boards.

The coöperation of official and private relief work with the courts of justice in the so-called Juvenile Courts' Aid is of great moment. The juvenile courts' law of 1919 authorizes the courts to avail themselves of the assistance of individuals and societies, particularly in investigating the private affairs of minors, in superintending and helping them and rendering them any assistance they may require in court proceedings. A probation control exercised by special probation officers was instituted together with the law referring to conditional sentencing and conditional pardon. The Juvenile Courts' Aid is administered partly by the juvenile courts and partly by benevolent societies. In Vienna it is prac-

tised by a committee representing forty societies with an office of their own at the juvenile court.

AID FOR DISABLED SOLDIERS, THEIR WIDOWS AND ORPHANS

Aid for disabled soldiers, their widows and orphans, has been regulated by a law dated April 25, 1919. As far as its structure and technique are concerned, the law is similar to that of insurance against accidents. Whoever has suffered an injury to his health, either through active war service or military action of any kind, has a claim to an indemnity to be paid him out of the public funds. Should his death result from one of the above causes, the claim may be raised by his widow and orphans. In cases of such impaired health, a claim may be brought in for medical treatment to restore the victim to health as far as possible, and to enable him to earn his living; or for obtaining artificial limbs and orthopedic appliances; or for training in some new profession in order to replace the old, or to increase the reduced capacity for making a living.

The claimant is further entitled to receive a monetary support during the term of his medical treatment or professional training and to an invalid's rent as long as his working powers continue to be considerably reduced. The invalid's rent is computed with due regard to the claimant's previous training and the place of his abode. Allowance is made for the prevailing dearth of houses. Besides, the claimant's regular income made during his civilian occupation up to the time of his accident is also taken into account. The rent calculated in this manner is paid entire in the case of the claimant's complete incapacity to earn his living. If his capacity to earn his bread, only, is reduced, a larger or smaller fraction of the full rent is al-

lowed in proportion to this reduction.

A claim to the widows' and orphans' rent may be raised by the widow—in some cases, even a woman with whom the deceased has set up house-keeping without being joined to her in a lawful wedlock—by legitimate and illegitimate children, by parents, grandparents, and brothers and sisters if the latter are orphans. The rent allowed them forms a fraction of the full rent granted to the directly injured claimant. The relations also receive "burial money."

For the calculation of the rents and the enforcement of the law, disabled soldiers' indemnity commissions have been instituted in those provinces in which the organizations of aid for disabled soldiers, their widows and orphans, and juvenile aid societies are represented. Their principal duty is to decide about the existence and extent of the claim according to the law. The proceedings are now dragging in the courts owing to the different interests involved.

POOR RELIEF

Poor relief in Austria is based on the home law (*Heimatsgesetz*) of 1863. By this law poor relief devolves on the native community. Only in Lower Austria are the communities of one jurisdictional district joined together in so-called "poor districts." Poor relief consists of the grant of the necessities of life, including the costs for sickness, nursing and burial, and of education for the poor under age. Claims on the part of the poor to any special kind of provision are not acknowledged. The poor relief comes into force only where no other kind of help is administered. In the relief of the poor, numerous persons are engaged as volunteers without receiving any pay. In conformity with the poor law, pecuniary aid is the last to be

rendered; nevertheless, it has in the course of time become one of the principal forms of help in the so-called outdoor relief (*offene Armenpflege*). The existing institutions for indoor relief (*geschlossene Armenpflege*), which provides homes for the poor and aged, are not numerous enough to receive all those needing them.

Poor relief varies very much according to the wealth of the supporting community; it is better in the larger towns and bad in the poorer districts of the country side. One particular

drawback is the fact that a person may be received in a community other than that to which his parents belonged only after a ten years' residence. A great number of people, therefore, belong to a different community from the one in which they live.

The public poor relief finds its complement in institutions and societies of voluntary poor relief. At present all these institutions are laboring under a severe serious lack of means as far as they are dependent on voluntary contributions or on a capital income.

CHAPTER XIV

The Present State of the Housing Question in Austria

By HEINRICH GOLDEMUND

Civil Engineer, Former Architect in Chief of the City of Vienna

STRANGELY enough, though the population of Austria has diminished from 6,279,936 in the year 1910, to 6,057,612 in the year 1920, in all the seven greater towns of the Austrian Republic, but especially in Vienna, there has resulted a severe shortage of vacant apartments.

In the country since the year 1910, the number of inhabitants has shrunk from 3,877,787 to 3,810,667, a comparatively small decrease, whereas in the same length of time the number of the inhabitants of the towns has been reduced from 2,402,176 to 2,246,950. This loss almost exclusively concerns Vienna, its population having been reduced from 2,031,421 in the year 1910 to 1,841,326 in the year 1920, while the other German Austrian towns, such as Graz, Linz, Innsbruck, and Wiener-Neustadt, with the exception of Klagenfurt, show a growth of population. Yet the housing calamity is greatest in Vienna. The diminution of the population in all German

Austria, but especially in Vienna, is compensated by an increase in the number of householders within the territories now comprised in German Austria. Whereas 1,391,230 householders were recorded in 1910, there were 1,444,226 listed in 1920.

The increase of householders is limited to the towns, while a small diminution is noticeable in the country districts. In Vienna alone, the increase of householders amounts to 38,678 while it averages only 14,919 in the other large towns. This increased number of householders which is to be accounted for by the immigration of whole families and the setting-up of house-keeping by numerous young married couples (who were prevented from doing so as long as the War was on), does not meet with an equal increase in the number of flats. As a matter of fact there has been hardly any private mansion building since 1914. If anything, the number of apartments for private families has decreased. Some

have been restored to their former uses, and are now occupied by offices of the government economic control departments, or of newly-founded business and banking concerns.

In Vienna about 52,000 applicants for vacant apartments, among them 18,000 whose claims deserve most urgent attention, have booked their names in the registers of the municipal housing board. In the other greater towns of the Republic we may reckon with an urgent need for from 9,000 to 10,000 dwellings.

In this connection it may be observed that among the working classes the former custom of sub-letting rooms is much less practiced now, whereas the middle classes have taken it up to a wide extent.

RENT AND HOUSING LAWS

The great demand for apartments on the one hand, and the total lack of any offer of the same, on the other, entailed the danger of a wild rent speculation, and measures had to be devised to protect the less solvent part of the population against undue raises in the rents and against evictions. It was therefore made compulsory that on evacuation all flats were to be exclusively allotted to the would-be tenants through the intermediary of the municipal housing boards. Moreover, a law for the protection of tenants greatly restricted the right of landlords to give notice at their own free will or to raise the rents, and subjected this right to the control of the newly instituted housing boards. Owing to these measures the rents, contrary to the exorbitant demand of all other commodities and necessities of life, show but a moderate increase, that is, about 50 per cent. At present a raising of the rents corresponding to the diminished purchasing value of the currency is being discussed; nobody, however,

would dare carry it into effect, even by degrees, for fear of arousing great public sentiment.

The fight against the housing calamity throughout all Austrian towns is opposed by the greatest difficulties. The building cost of residential mansions has augmented a hundred-fold over 1914 so that only a similar raising of rents could ensure the sums required to pay for interest and amortization. At such enormous rents, however, flats could find no tenants, great as is the demand.

STATE ENCOURAGEMENT OF BUILDING ENTERPRISES

The government and the town councils are endeavoring to encourage private enterprises in house building by granting subsidies, and monetary credits, and by charging themselves with the payment of interest and regular quotas towards redemption. On the building of all houses the revenues of which are too small to allow of the regular payment of interest and redemption quotas, costs called "the lost building expenditure" are allowed.

By a law dated April 15, 1921, a dwelling and colonization fund has been founded, which, through shares taken by the state, by employers and by all workmen who belong to the obligatory sickness, old age insurance and other funds, will provide larger means for social help. The revenue of the fund will amount to about 160 million kronen yearly, which, including the contributions of the municipality and the employers, will suffice for the payment of interest and redemption quotas corresponding to a building capital of about 3 billion kronen. With this sum, which will first have to be raised in cash by the banks and savings banks, could be built from 5,000 to 6,000 small dwellings, consisting of one room and kitchen each, a

number which, compared with the demands for dwellings, described above, would bring but little relief.

Another suggestion to further the building of dwellings by capitalists aims at increasing the building of dwellings

with renting capacities by exemption of such from all taxes. But the hesitation caused by the present condition of the public finances which seems to oppose this particular solution, has not yet been overcome.

CHAPTER XV

Criminality in Austria

By DR. WENZEL GLEISPACH

Professor of Jurisprudence and Political Science at the University of Vienna

CRIMINALITY and similar aspects of social life are the reverse of the social and economic conditions and the moral character of a nation. When a heavy economic crisis, the dissolution of a great empire and a vast social subversion coincide, criminality must increase and morality decline. So far as the social condition of Austria is concerned, the unfavorable effects of war-time and the issues of both the War and the Revolution are also to be included. Still further ominous to social life were the misuse of army supplies; the enrichment of many persons at the expense of the nation, the numbers of men who had managed to escape the army service and the excess of governmental prescriptions, which often could not be kept and so weakened the fear of infringing governmental authority. Disastrous, too, was the great disillusionment of all who had sacrificed themselves during the War, expecting some reward, and who, when it was over, had only to endure increased distress and heavier burdens.

The collapse of traditional powers and the creation of a young democracy were additional sources of difficulty for the government since the substitution of a democratic republic for a monarchy must inevitably have ill

effects. The case of the Revolution does not afford a special study of criminal law. We can simply state that the abolition of the monarchy and the institution of the republic took place almost without resistance and bloodshed, an adjustment such as has seldom occurred in history. The Revolution, therefore, did not become in Austria, as so often happens, the starting point and the contagious example for blood-shed and violent deeds. But, on the other hand, the Revolution has been hailed, in pardonable error, as liberation from every authority, as the beginning of a time when only rights exist, and not duties or regard for others. This error is pardonable since democracy requires the highest social and national sentiment, while the Austrian has scarcely been educated far enough to become a good citizen. He has received no training from history, for at the collapse of the old Austria its constitutional life was not older than half a century and the participation of the masses much younger still; or from his schooling, for social education is almost totally neglected in the schools.

The error has been further fed and propagated by the Bolshevik agitation and the papers it controls. The seeds of Bolshevism find most fertile

soil in the general economic distress, in which now this group, now that, sees itself threatened by ruin if it does not try to watch its own interest relentlessly.

INCREASE IN CRIMINALITY

An effort to describe the present criminality in Austria must renounce, to a great degree, any attempt to give statistical figures as fundamental. Some few official figures suffice to show the increase of criminality. The criminal courts of first instance, now belonging to the Austrian Republic, had in 1916 to deal with 16,000 crimes and offenses; in 1918, with 34,000; in 1919, with 44,000 and in 1920, with 64,000. Figures for the lighter offenses or minor criminality, with which the district courts of law have to deal, that is to say, minor robberies, slight bodily injuries, insults, etc. are neglected, but their increase is at least as great as that of the graver criminal cases.

Attacks upon life and body have not generally increased, and personal security is not threatened to any increased degree; a deplorable increase in brutality is to be seen in the lack of consideration, but it does not end in crimes of brutality. A very large increase is to be stated only in the case of abortion. This had already begun during the War and has to be ascribed, in the first instance, to the economic distress and to the impossibility of bringing up healthy children. At present, also, an increase in immorality and thirst for pleasure play a distinct rôle in Austria's social condition.

PROPERTY OFFENSES

The increase of criminality in general has to be ascribed to the increase in offenses against property. Now, as before, armed attacks are seldom, but the primitive forms of attack on other peoples' property, such as theft,

burglary, pocket-picking, theft in the house community and the robbery of transport goods, are particularly frequent. Here, too, the pressure of economic distress is the dominant factor. The freedom from the custom of regular work during the long campaign is another cause; likewise, a wrong conception of the social and economic revolutions and reform projects. As often as a thief attacks other peoples' property to enrich himself he admits the doctrine of private property. But if a revolution proceeds to expel whole classes of the population from their economic obligation, if the common features of "Nationalization" are distorted and used as a means of agitation, and if legislature and administration—justly or not—interfere regardless of existing rights, then, in immature and untrained brains, may easily arise the idea that robbery is an almost authorized way to produce a juster distribution of goods. In such a case there may arise, also, similar confused notions which remove or weaken the restraint against robbery.

This very large increase in property outrages endangers the whole economic life. But already the beginning of an improvement may be acknowledged. The element of distress has been somewhat alleviated by the better state of employment in industry and the smaller number of unemployed, while a wholesome social reaction against robbery has not been wanting. These efforts prove that the majority of the population has remained sound or that many, having become wiser on seeing the damage done, have begun to clear their confused ideas. For the future, all depends upon the question whether the injurious consequences of depreciated currency will not lead to increase of the impulse toward robbery.

PROFITEERING

Reaction against robbery is the more necessary, as embezzlement and fraud, both offenses of economic life, tend, even under sound conditions, to increase with a more lively intercourse, and therefore must increase in Austria. A still greater danger are the profiteers. The very beginning of the War created an economic situation in the scarcity of and craving for goods, in which simply the lack of a strong social feeling was sufficient to sanction *Preistreiberei*, usurious raise of prices. The post-war situation accentuated this tendency to permit unjust profits. Austria's inability to supply her requirements within her own boundaries, the disturbance of all connections, the isolation of Succession States, the continued depreciation of the currency (interrupted only by a short rise in the rate of exchange) produced a quite aleatoric effect in economic life and rendered it in many businesses, almost, if not quite, impossible to discern the limit of just and unjust prices, of allowed and unallowed profit. The legislation has struggled desperately since 1914 against the nuisance of *Preistreiberei*. Beside *Preistreiberei*, other dealings have been threatened with punishment: *Aufkaufen*, the buying of goods to hold until their prices are raised; *Kettenhandel* the passing of goods through more hands than necessary in order that every vendor of them may make a profit in raising the price; *Schleichhandel*, forbidden trade with goods controlled by the state. These penalties include the heaviest imprisonment and fines up to 10,000 kronen.

This war of legislation, however, cannot be won, since symptoms of economic illness, much as they are to be condemned, cannot be removed by penal laws. Beside the fact that the

social reaction is weak at best, it has against it the difficulties of an organization of consumers, the fear of losing the indispensable purveyors and, finally, a large number of those, who have, themselves, become rich by *Preistreiberei* and similar means and are, in consequence, always ready to pay even extremely high prices. *Preistreiberei*, *Kettenhandel* and speculation with foreign values are typical diseases of such times of decay. Quite as much by taking illicit advantage, they do wrong by undermining business morality, by diverting others from their honorable but less profitable work and tempting them to imitation by bringing forth provoking luxury and debauchery.

POLITICAL MENACES

Beside the exploitation of economic freedom in an increase of offenses against property, direct attacks upon social freedom are characteristic of the criminality of Austria at the present time. In the struggle of political factions to carry out economic claims or attempts at organization, menaces, on refusal of fulfilment of duty, are used with the utmost lack of consideration and, also, as if they were incontestable, even lawful means. In contrast to the perpetrators of economic offenses an organized multitude is generally the subject here, or a single person only as representative of a group. Open violence occurs but relatively seldom. It is generally not necessary, as the supreme power does not meet opposition by the means of its strength and as the persons menaced lack organization or power to make resistance. If this were not so, many crimes against the government and its agencies would presently ensue. But as the supreme power intercedes only for mediation and when it is itself threatened tries to find a compromise,

very often no hold at all is laid on these attacks upon freedom by criminal jurisdiction and they appear only to a slight extent in the statistics of criminality. But criminal phenomena they are nevertheless. Yet some people do not see them as attacks on freedom, but even consider that freedom itself is protected by them; i.e., the freedom of the group or organization is protected against the menace, which lies in the conduct of the outsiders or the government opposed to their interest. Such attacks have been called manifestations of the birth of a new conscience concerning the law and of a new state of law. We should call this one of the false doctrines appearing in the garment of sophistry, which are also to be encountered in other domains as morality, art, and are typical of our time. Does the law not disown its purpose if it stands always on the side of the stronger?

The condition described is a transition. It leads either to dissolution or to an attempt to equalize without beforehand making use of the means of menace. In this case organizations are formed to bring about compromises. In spite of some threatening and vexing details our way leads in the second direction. Some tendencies toward it are to be observed in legislation and social institutions. Favorable evolution, however, must not be too much tried by the continuance of the crisis or must not be made impossible by an accentuation of the crisis.

Is this huge increase of criminality chronic or sudden criminality? And is it to be ascribed to habitual criminals or to occasional criminals? To be sure the activity of habitual criminality has increased in the Austrian towns, especially in Vienna, at present attracting many international criminals. It must be remembered, too, that a large

part of the fugitives from East Galicia and Bucovina who came during the War to Vienna and other Austrian towns continued to remain there after the War and that many of these strangers live by *Kettenhandel*, *Schiebungen*, speculations and other dishonest gain. Also even if these persons were condemned by the courts to banishment, the Austrian state would be too weak to actually expell them, especially since the neighboring countries and the native countries of the criminals are opposed. But all this does not suffice to explain the increase of criminality. It must be admitted that an increasing number of hitherto honest persons have fallen into crime. This fact and the heavy criminal taint on the youth of Austria are the most menacing phenomena. Next to them stands the heavy increase of prostitution among the female youth which, characteristically, is generally practised only as extra gain. Here is the danger of an ever spreading immorality, a diminution of the fear of crime, and a criminal infection of the population.

CRIMINAL LEGISLATION

Criminal legislation and jurisdiction conduct a difficult struggle against the increase of crime. If the security of the person is protected as usual and the security of the property not much more endangered, this safety is to be ascribed in the first instance, particularly in the worst cases, to the successful activity of the criminal police. The criminal courts are not less overburdened as means to handle the arrests are insufficient and the prisons overcrowded. The legislation tried to help as much as possible. It introduced *Schöffengerichte*, juries with two elected professional judges and two laymen judges, for all crimes and offenses which do not come before the

courts in consequence of their particular gravity or political character. In this manner the social reaction has with great success been brought to help the criminal jurisdiction. All smaller crimes and offenses can be judged summarily by a single judge (up to one year of imprisonment). Attempts are made to spare the criminal who errs for the first time and the criminal whom it seems possible to improve and to set him up by the probation system, conditional discharge or rehabilitation; and to send him who repeatedly relapses, when the penalty has been payed off, for at most five years, to a workhouse—an approach to indeterminate sentences. All this, however, cannot supply the much needed reform of criminal law and of the prisons, which cannot be put through in consequence of the crisis in public finances.

But even model institutions throughout the whole criminal jurisdiction cannot reduce criminality to a normal degree as long as the pressure of the

economic crisis gives continued impulse to crime, and as long as the steadily depreciated currency allows the unscrupulous to triumph and the honest to perish. Still the majority of the population is sound. What treasure of good qualities it bears, is shown by the resistance which it has opposed till now to the combination of impulses to immorality and criminality described. These qualities are shown, also, in the beginnings of improvement in the criminality, which can be definitely stated, and which, according to observations for the first quarter of 1921, allow the hope that the height of criminality has already been passed. The moral soundness of Austria is further proved by the fact that active Bolshevism, the declaration of violence and crime as forms of government, has (in spite of many attempts by foreign agencies) been unable to take even a provisional hold in the Republic. If Austria is saved financially, the high tide of criminality will at once go down.

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